ANIMAL AND PLANT HEALTH INSPECTION SERVICE

REVISED FY 2000 and FY 2001 ANNUAL PERFORMANCE PLANS

The Animal and Plant Health Inspection Service (APHIS) was established on April 2, 1972, pursuant to the authority of the Reorganization Plan No. 2 of 1953. The mission of the Agency is to lead the way in anticipating and responding to issues involving animal and plant health, conflicts with wildlife, environmental stewardship, and animal well-being. Together with our customers and stakeholders, we promote the health of animal and plant resources to facilitate their movement in the global marketplace and to ensure abundant agricultural products and services for U.S. customers.

APHIS is comprised of five major functional areas: (1) Pest and Disease Exclusion, (2) Plant and Animal Health Monitoring, (3) Pest and Disease Management, (4) Animal Care, and (5) Scientific and Technical Services. (For the statutory authority for work performed in the five program areas, please see the APHIS Strategic Plan.)

Pest and Disease Exclusion: Through its exclusion efforts, APHIS safeguards U.S. plant and animal resources from exotic pests and diseases, while meeting agricultural trade obligations. APHIS begins its safeguarding efforts outside U.S. borders by working in other countries to help control foreign agricultural pests or diseases that pose significant biological risks to U.S. agriculture. Another component of APHIS' safeguarding system takes place at U.S. ports-of-entry, where inspectors ensure that international travelers and cargo companies comply with animal and plant health regulations. For certain commodities, APHIS also extends its inspection activity to other exporting countries, where APHIS inspectors conduct preclearance programs to ensure that foreign agricultural products destined for the United States do not present a risk to U.S. agriculture and to reduce the need for inspections at U.S. ports-of-entry. Because it has authority to regulate imports of agricultural products, APHIS scientists and technical experts play a major role in facilitating trade by carrying out the requirements of the World Trade Organization's Agreement on Sanitary and Phytosanitary Measures. This includes negotiating trade protocols, resolving animal and plant health disputes, and certifying agricultural products for export.

- 1. Plant and Animal Health Monitoring: The plant and animal health monitoring programs are largely cooperative efforts involving the Federal and State governments, and industry. While APHIS conducts exclusion activities to provide a strong line of defense against the entry of exotic pests and diseases, it also conducts monitoring and surveillance programs to quickly detect any pests and diseases which avoid the Agency's exclusion efforts. These monitoring and surveillance programs help prevent the costly establishment of exotic pests and diseases. Upon entrance to this country, these pests and diseases are rapidly diagnosed. The Agency also carries out surveys in cooperation with the States to detect harmful plant and animal pests and diseases. The programs also help determine if there is a need to establish new pest or disease eradication programs.
- 2. Pest and Disease Management: In cooperation with the States, APHIS conducts programs to detect, prevent, and eradicate pests and diseases which are harmful to agriculture. The Agency monitors and regulates interstate shipments of plants, livestock, and related materials to prevent the spread of disease and the distribution of impure, unsafe, and non-efficacious materials and products. Through the Wildlife Services (WS) program, APHIS protects agriculture from detrimental animal predators through identification, demonstration, and application of the most appropriate methods of control.
- 4. Animal Care: The Agency conducts regulatory activities which ensure the humane care and treatment of animals and horses as required by the Animal Welfare Act (AWA) of 1966 as amended (7 U.S.C. 2131-2159), and the Horse Protection Act of 1970 as amended (15 U.S.C. 1821-1831). These activities include inspection of certain establishments which handle animals intended for research, exhibition, and sale as pets, and monitoring of certain horse shows.
- 5. <u>Scientific and Technical Services</u>: APHIS develops methods to control animals and pests that are detrimental to agriculture, wildlife, and public safety. The Agency's regulatory structure brings the

benefits of genetic research to the marketplace, while protecting against the release of potentially harmful organisms into the environment. APHIS also conducts diagnostic laboratory activities that support the Agency's veterinary disease prevention, detection, control, and eradication programs. The Agency also provides and directs technology development in coordination with other groups in APHIS to support plant protection programs of the Agency and its cooperators at the State, national, and international levels.

This document provides enhancements to the FY 2000 Performance Plan, including a cleaner format, better connections between performance goals and Agency objectives, more clearly defined goals, indicators and targets, and attention to explanations which GAO recommended we provide, including external factors and verification and validation issues.

<u>GOAL 1</u>: Safeguard U.S. plant and animal resources against introductions of foreign pests and diseases, while meeting international trade obligations

Program Activities: Agricultural Quarantine Inspection, Cattle Ticks, Foot-and-Mouth Disease, Fruit Fly Exclusion and Detection, Sanitary/Phytosanitary Management, Import/Export, Screwworm, Tropical Bont Tick, Invasive Species (prevention).

(In thousands of dollars)	FY 1998 Actual	FY 1999 Actual	FY 2000 Estimated	FY 2001 Estimated
Funding (Appropriated)	\$101,844	\$111,624	\$113,550	\$154,630 *
Funding (Reimbursable)	\$140,581	\$152,233	\$187,777	\$214,823
Total Funding	\$242,425	\$263,857	\$301,327	\$369,453 *
FTEs (Appropriated)	1,148	1,134	1,191	1,266**
FTEs (Reimbursable)	2,000	2,025	2,308	2,569
Total FTEs	3,148	3,159	3,499	3,825**
* Includes \$4,455 for Invasive Species				
** Includes 10 SY for Invasive Species				

<u>Objective 1.1</u>: Agricultural Quarantine Inspection (AQI) - To maintain the risk of introduction of invasive species into the U.S. at acceptable levels to protect American agricultural resources, maintain marketability of agricultural products, and facilitate the movement of people and commodities across the borders.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Minimize the risk of invasive species introduced to the U.S.				
Compliance rates at U.S. borders for:				
International air travelers	94.4%	95.8%	95.4%	94.9%
Border vehicles	95.6%	97.6%	97.1%	96.1%

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Cargo	95.5%	98.1%	96.5%	96.0%
Approach rates at U.S. borders for:				
International air travelers	5.9%	5.6%	5.9%	5.9%
Border vehicles	4.6%	2.7%	4.6%	4.6%
Cargo: Sea (refrigerated)	7.0%	4.9%	7.0%	7.0%
Sea (non-refrigerated)	5.8%	5.1%	5.8%	5.8%
Air	7.5%	4.2%	7.5%	7.5%
Satisfy customers and stakeholders				
Percentage of international air passengers cleared through the Federal Inspection Service (FIS) primary inspection process within 30 minutes - High Impact Agency Goal	83%	N/A	85%	85%
Percentage of international travelers on land borders cleared through the FIS primary inspection process within 30 minutes during non peak times - High Impact Agency Goal	82%	N/A	85%	85%

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

Compliance Rate refers to the percentage of international travelers or vehicles clearing the Federal Inspection Service at U.S. borders who meet Federal Agricultural regulations. *Approach Rate* refers to the ratio of quarantine material approaching U.S. borders to the number of international travelers or vehicles approaching U.S. borders. *Cargo Approach Rate* refers to the number of maritime containers (or container equivalent), air way bills, or land border trucks requiring action because of an actionable pest, disease, or contamination. While the American public, as consumers of agricultural products, are well served by APHIS' efforts to minimize the risk of exotic pests and diseases through ensuring compliance at ports and borders, the American public as "travelers" are also well served when the Agency is able to work in partnership with other inspection agencies (INS, State Department, Customs, Treasury) at these ports to expedite passenger processing through clearance while at the same time ensuring compliance with regulations. Passenger processing is expedited as a result of APHIS' participation in formal, monthly Port Quality Improvement Committee (PQIC) meetings with other inspection agencies to resolve processing problems. In addition to the PQIC meetings, which have been established in 23 States nationwide, less formal committees meet in other States to discuss and resolve the same types of issues. The actual data for FY 1999 for the measures under "Satisfy customers and stakeholders" has not yet been compiled.

Means and Strategies: APHIS participates with other Federal inspection agencies including the U.S. Customs Service, the Immigration and Naturalization Service, and the State Department, in a Border Passenger Processing Re-engineering Initiative. This Federal Inspection Services (FIS) Partnership examines ways to expedite passenger processing while maintaining or increasing compliance with laws

and regulations. Also, APHIS participates in Passenger Analytical Units at airports. These units use advance passenger information to target high-risk passengers while allowing the vast majority of compliant passengers to proceed quickly through the Federal inspection process. Dedicated commuter lanes were established at land border ports of entry on the northern and southern borders to accommodate frequent travelers between the U.S. and Mexico or Canada. In addition, the Agency works with the U.S. Army to develop new x-ray technology to detect agricultural products in baggage based on atomic makeup and shape using neural network software. APHIS also works with Customs and maritime and air cargo lines and importers in the Automated Commercial System for electronic transmission of cargo data and entry documents to expedite processing of required data on airports. APHIS enforces agricultural regulations by conducting blitzes as part of multi-agency Trade Compliance Teams to search for prohibited items in U.S. markets. These Teams coordinate entry status requirements between APHIS, USDA's Food Safety and Inspection Service, and the Food and Drug Administration. For FY 2001, APHIS is requesting \$3.9million and 28 staff-years to increase border activity at high risk locations along the Canadian and Mexican borders and in western States (including Hawaii). This will enhance APHIS' pest exclusion capability; improve its response to threats from exotic pests; and provide opportunities to examine emerging pathways. Also, it would likely improve customer satisfaction in these locations due to reduced passenger and cargo delays.

Verification and Validation: Through its AQI Monitoring System, APHIS prepares program and workload/budget reports to measure and verify inspections and seizures. This system uses a statistically valid sampling procedure and involves a thorough inspection of passengers approaching a border crossing.

Despite a small percentage of poor data quality (due to port personnel changes, equipment failure and non-support by some local management) the quality and reliability of the majority of the monitoring data remains valid. The majority of the monitoring data serves the purpose of obtaining more accurate estimations of approaching prohibited agricultural items. Data are collected at multiple ports for each pathway listed by applying the same statistical sampling procedures at each of the ports. These data allow a more accurate estimation of "approach rates" for prohibited agricultural items and cargo pests arriving at U.S. Ports of entry. A National Monitoring Coordinator position was created and filled in October, 1999 to address data quality issues and oversee data reliability.

<u>Objective 1.2</u>: Cattle Ticks - To prevent the establishment of cattle fever ticks, and their associated diseases, in the United States.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Limit the number of infested premises found outside the quarantine zone				
Number of cattle tick infested premises found outside the quarantine zone	4	8	25	25

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

Despite an increase in funds, the number of infested premises (both new and carried forward from previous fiscal years) found outside the quarantine zone is expected to remain the same for FY 2001. This is because Texas will be withdrawing some of its cooperator funding in FY 2001 and APHIS will have to offset this loss. The target for this measurement has remained fairly constant over the years because the goal of the program is to prevent the re-establishment of cattle fever ticks in the United States, not necessary to eradicate the ticks. When the program began in 1906, losses from cattle fever ticks were

\$40 to \$60 million annually. By 1943, cattle ticks were eradicated from the United States. Since then, occasional outbreaks have occurred and been eradicated. If cattle fever ticks (and the associated disease, babesiosis) were to become re-established in the United States, the cattle industry could potentially suffer annual losses totaling \$1 to \$2 billion.

Means and Strategies: Funds are being requested to develop eradication technology. External factors which may influence the results of the program include acaracide resistance, finding a chemical company to develop and patent alternative acaracides, and controlling tick infected wildlife from re-infecting premises in the quarantine zone. To deal with the infected wildlife, ARS has developed a systemic pesticide which is delivered by pesticide-medicated baits. FDA has approved this technology through its minor use animal drug program, but APHIS has been unable to locate a manufacturer to produce the pesticide.

Verification and Validation: Program and workload/budget reports will be used to measure and verify the number of infected premises. In addition, peer reviews by the State of Texas and the Agricultural Research Service will be conducted to measure program success. Infestations and locations are determined by on-site investigations. Weekly reports of all investigations are logged by the area program office. The data is highly accurate.

<u>Objective 1.3</u>: Foot-and-Mouth Disease/Other Foreign Animal Diseases - To exclude Foot-and-Mouth Disease and other foreign animal diseases from the U.S. by quickly detecting and controlling outbreaks of these diseases in key foreign locations.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Minimize outbreaks of FMD in Colombia				
FMD detections:				
Colombia: Darien Gap buffer zone	0	0	0	0

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

APHIS will eradicate FMD outbreaks in the FMD-free and vaccination areas to prevent the northward spread of the disease and will also prevent and control other foreign animal and vesicular diseases. Detections are expected to increase in Colombia because the program is expanding treatment into new areas.

Means and Strategies: The program scope is expanding to improve surveillance and monitoring for rapid notification and response to outbreaks of vesicular disease or other foreign animal diseases in trade partner countries. APHIS also provides technical and financial assistance to the joint US/Colombia program. FMD detections in Colombia should increase as the program moves into new areas.

Verification and Validation: Annual technical reviews will be conducted by either a board of Commissioners or a Senior Review Group consisting of animal health authorities. An APHIS veterinarian along with host country veterinarians will examine data, interview farmers, and analyze program effectiveness.

<u>Objective 1.4</u>: Fruit-Fly Exclusion and Detection - To control and eradicate fruit flies, primarily the Mediterranean fruit fly and Mexican fruit fly, in foreign countries where they may pose a serious threat to U.S. agriculture and to conduct detection and prevention activities in the U.S.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Minimize Fruit Fly outbreaks in Mexico and Guatemala				
Medfly detections:				
Chiapas, Mexico	239	180	100	0
Peten free zone (Guatemala)	9	0	0	0
Minimize the number of Fruit Fly outbreaks established in the U.S.				
Number of Fruit Fly outbreaks established in the U.S.	11	4	0	0
Severity of Fruit Fly outbreaks in the U.S. (sq mi)	1,099	62	162	162

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

This program protects the orange, grapefruit, avocado, pepper, mango, and guava industries. FY 1998 saw nine outbreaks in California (four of these in Los Angeles County) and two in Florida. Several criteria are used to identify separate outbreak areas: (1) publication of individual Federal regulations, (2) different genetic origins, (3) relationship to previous outbreaks, and (4)probable path of introduction. Outbreak severity is measured by the size of the regulated area. The number of outbreaks indicates the success of the exclusion program, while the severity of the outbreaks indicates the success of the detection program. Detections in FY1998 and 1999 reflect a serious outbreak in southern Mexico. The Government of Mexico and USDA declared the situation an emergency and have initiated emergency eradication activities. APHIS will strengthen domestic fruit fly detection and control activities in Florida and California to identify and eradicate fruit fly intrusions quickly, thereby reducing the number of large scale, expensive emergency programs historically used to eradicate outbreaks.

Means and Strategies: APHIS will significantly increase sterile release and trapping activities to establish and maintain a Medfly barrier in western Guatemala and prevent the northern spread of Medfly through Mexico and into the United States. These activities are currently being conducted through APHIS' emergency program; in FY 2001, APHIS plans to fund them through appropriated funds. The Agency will conduct trapping activities closer to protocol levels in Florida and enhance trapping efforts in California through increased quality assurance activities. Through the trilateral Moscamed program with Mexico and Guatemala, APHIS conducts activities to maintain a Medfly barrier in western Guatemala and to prevent the northern spread of Medfly through Mexico and into the United States. For FY 2001, APHIS is requesting a significant increase to enhance cooperative efforts to strengthen this barrier. Also in FY 2001, APHIS would establish a Medfly Preventative Release Program (PRP) and enhance detection trapping in Florida. In cooperation with the California Department of Food and Agriculture (CDFA), this PRP will involve sterile insect technology (SIT) using a newer, more efficient Medfly strain. Funding is also included for detection trapping at the protocol level as recommended by a panel of scientific experts.

This will enhance the quality of the detection program and will significantly enhance the success of any subsequent eradication activities. The program is developing the use of biocontrol agents and Malathion alternatives to make eradication southward a distinct possibility.

Verification and Validation: When a fly is detected, a Federal or State representative will notify APHIS program staff at headquarters. This staff monitors the number and severity of outbreaks and documents them through periodic internal reports. The frequency of these reports are dictated by the frequency and location of fly finds. Every detection does not necessarily trigger an eradication program. When such a program is warranted, headquarters personnel will prepare a regulatory work plan and set regulatory boundaries. This information and related data will be published in the Federal Register.

<u>Objective 1.5</u>: Import Export - To further the export of U.S. animals and animal products, ensure that imported animals and animal products present minimal risk of introducing damaging exotic animal diseases into the U.S. livestock and poultry population, and promote timely and efficient health certification processes for U.S. imports and exports.

Sanitary/Phytosanitary Management (SPS) - To minimize the threat of foreign agricultural pests and diseases entering the United States by ensuring that agricultural trade complies with international science-based plant and animal health standards.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Increase the number and value of agricultural products exported from the U.S.				
New or modified cumulative export protocols facilitating U.S. access to new overseas markets (Import/Export)	20	32	37	42
Number of SPS issues resolved	44	N/A	N/A	N/A

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

Export protocols are agreements between countries stating the criteria that products must meet before they are granted access to their markets. APHIS promotes markets abroad by ensuring that U.S. origin animals and animal products meet health and welfare requirements of recipient countries. The agency will increase the number of new or modified animal or animal products export protocols to facilitate U.S. access to new overseas markets.

Activities are aimed at minimizing the threat to plant and animal resources as well as ensuring that trade complies with international science-based plant and animal health standards. Through these activities, the trend of the value of exports should increase (though year to year these may be expected to contract as trading partner's economies and buying power do), questionable trade barriers should be reduced or eliminated, and fewer outbreaks or establishments of significant exotic pests or diseases should threaten animal and plant resources. The number of issues resolved concerning imports into the United States has an influence on issues concerning U.S. exports. In 1998, over 44 issues were resolved worth over \$398 million. As evidenced by the two previous years, it is difficult to set results targets for future years around the number of SPS issues to be resolved (and their associated value). While APHIS intends to report on the outcomes of these issues, it will not be projecting targets for future years.

Means and Strategies: Two additional staff years have been requested to handle the increased workload for risk assessments and sanitary requirements. These additional staff-years will allow APHIS to increase the number of new and/or modified protocols produced. This will result in expanding existing markets. Several external factors may prevent the program from meeting its goals including: importing countries that may not recognize regionalization efforts in the United States, importing countries setting unscientific barriers to U.S. exports (thus requiring us to petition the World Health Organization); and animal disease outbreaks in the U.S.

The demands facing APHIS in U.S. biosecurity and facilitating trade have increased substantially as a result of agricultural trade liberalization achieved during the GATT Uruguay round. Nineteen additional staff years are needed to meet the demands in scientific research, management of trade issues, international standards development, bilateral negotiations, and plant risk assessments. The program will also open 2 new offices and increase operating resources for current Foreign Service Officers.

Verification and Validation: For Import Export, customer surveys, statistical import/export reports from NASS, and several Agency tracking systems (including the Permit Issuance Tracking System, the Import Tracking System, and the Regionalization Database) will be used. APHIS has not developed an independent capacity for verifying or validating information from the National Agricultural Statistics Service (NASS), a source outside the Agency.

Technical SPS issues related to both imports and exports are managed in the Agency's AT-BAT database. Issues resolved are reported each fiscal year in a report on SPS accomplishments. Data for both these mechanisms are collected from the Foreign Agricultural Trade of the United States. Staff economists and technical experts verify the data. In addition, market reports prepared by the Foreign Agricultural Service, sales to comparable markets, and industry estimates are used.

<u>Objective 1.6</u>: Screwworm - To prevent economic losses to the U.S. livestock industry from the reintroduction of screwworms by eradicating the screwworm through the Central American Isthmus to the Darien Gap area of Panama.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Reduce positive screwworm cases reported in the isthmus of Central America				
Free areas (U.S., Mexico, Guatemala, Belize, El Salvador, Honduras, Nicaragua)				
Costa Rica				
Panama				

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

Currently, active eradication zones include the entire country of Costa Rica and the western half of Panama. Once surveillance has begun in a country, detections will be significant and then gradually decrease over time. FY 1999 detections in Panama reflect more comprehensive surveillance activities over the entire country.

Means and Strategies: New laboratory and other equipment will allow the proposed facility to be fully prepared to begin operations, thereby reducing future costs and allowing for better maintenance of the screwworm barrier.

Verification and Validation: Suspect samples are identified in an identification laboratory to determine if they are screwworms or other types of larval flies. Field stations are established to monitor quality of dispersed sterile flies and to evaluate sterility of screwworm egg masses recovered from the edges of wounds. Surveillance occurs in freed areas. Program personnel review all surveillance data for accuracy.

<u>Objective 1.7</u>: **Tropical Bont Tick** - To prevent the introduction to the U.S. of tropical bont tick by eradicating it from the Caribbean.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Eradicate Tropical Bont Tick in the Caribbean				
Islands declared free of Tropical Bont Tick	0	0	3	20

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

The program focuses on a regional approach to eradicating tropical bont tick (TBT) and preventing the introduction of heartwater into the livestock industry and wildlife populations of the U.S. from infested Caribbean Islands. APHIS will assist in greatly reducing the vector population and breaking the heartwater cycle by assisting in the treatment of high percentages of animals, at least 95 percent by the end of the second year of an eradication program on an island.

Means and Strategies: The program is a cooperative, regional effort with many international organizations including the Food and Agriculture Organization, the Inter-American Institute for Cooperation on Agriculture, and the Economic Community of Caribbean Countries to control the spread of the tick and eradicate it from the Caribbean. APHIS provides technical expertise, program guidance, and funding through cooperative agreements to the Cooperative Amblyomma Program (Tropical Bont Tick) which conducts surveillance and tropical bont tick eradication with EPA approved acaricides. For example, an APHIS expert in TBT visits sites to determine the status of the eradication campaign. APHIS provided two surveyors to assess the effectiveness of the public interest campaign. APHIS representatives also sit on the board of the senior review group overseeing the program.

Verification and Validation: APHIS receives performance reports from the Cooperative Amblyomma Program which manages the program in the Caribbean. The data in the reports are used to include or exclude islands from program participation; evaluate existing data tracking systems; and suggest improvements at annual Amblyomma Program Council management meetings.

<u>Objective 1.8</u>: Invasive Species (prevention) - To enhance APHIS' ability to perform its mission as it relates to preventing the introduction of invasive species in support of Presidential Executive Order 13112 and the National Plant Board's recommendations from their review of APHIS' Pest Safeguarding System.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Enhance APHIS' ability to perform its mission as it relates to preventing the introduction of invasive species in support of Presidential Executive Order 13112 and the National Plant Board's recommendations from their review of APHIS' Pest Safeguarding System.				
New Pathway risk analyses completed	N/A	N/A	N/A	N/A
New invasive species pathways determined	N/A	N/A	N/A	N/A

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

In February 1999, President Clinton signed an Executive Order to coordinate a Federal strategy to address the growing environmental and economic threat posed by invasive species of plants and animals. Invasive species are defined as alien species whose introduction causes or is likely to cause economic or environmental harm or harm to human health. APHIS is one of over 20 Federal agencies involved with managing these species. By protecting ecosystems from harmful and invasive species, APHIS ensures that U.S. agriculture can feed its population, successfully compete in national and international markets, and protect the functionality and productivity of ecological biomes and natural resources. Given the speed and diversity of today's transportation, it is easy for invasive species to reach the United States. In fact, numerous, repeated introductions of costly exotic species are reported each year. Once here, they lack the natural enemies found in their original environments and may rapidly spread, threatening the economic welfare and stability of U.S. agriculture. Unintentionally imported invasive species (INSP) cause over \$123 billion in economic damage in the U.S. each year and rank second only to habitat destruction in threatening the extinction of native species. Pests such as zebra mussel in the Great Lakes, leafy spurge in the US western range land, and numerous exotic aquatic and terrestrial weeds that clog Florida's waterways, woodlands, and parklands are just a few examples of invasive species that now cause tremendous economic damage. The Mediterranean Fruit Fly, for example, could cause over 1.5billion dollars in damage annually, if it becomes established. In addition, social and political impacts of intentional or unintentional spread INSP are becoming more severe since these organisms are now found in or near large U.S. urban areas. In New York City, the Asian Longhorned beetle has been found near Central Park. If this pest is found in the hardwoods in Central Park, the trees would be cut down, causing world attention. Since 1996, hundreds of thousands of homeowners in Miami, Florida have lost their backyard citrus trees because of the foreign citrus tree disease called citrus canker. The addition of the loss of a major U.S. food crop to the above conditions may create large scale disruption of U.S. economic and national security. As this is a new program, targets for the proposed measures have not yet been established.

Means and Strategies: APHIS' FY 2001 request totals \$8.8 million and includes 38 staff years. These totals are comprised of \$4.45 million and 31 staff years (SY) to prevent the introduction of INSP's; \$3.95 million and 7 SY's to detect, rapidly respond to, and control populations of INSP in a cost-effective and environmentally sound manner; and \$400,000 to promote public education efforts. This budget, which APHIS developed directly with the National Plant Board, demonstrates a distinct shift in APHIS' overall strategy to accomplish its mission. Instead of solely requesting additional personnel and resources to detect, monitor, and publicize the impacts of domestically encountered INSP, funds are also being

requested to enable APHIS to increase partnerships (such as cooperative agreements and grants) so that States and non-Federal groups can conduct these activities themselves.

The INSP prevention initiatives focus on pathway analysis - how these organisms gain entry to the United States. To address these initiatives, APHIS will enhance mission-critical data systems and pest identification resources, increase data and risk analysis work, train personnel in statistical assessments, and test new organism-sensing equipment. These actions would bolster functions that can only be completed by a Federal agency, namely the exclusion of intentionally and unintentionally imported INSP at U.S. entry ports. They also enable APHIS to better allocate resources by concentrating on high-risk entry ways for INSP.

Verification and Validation: To monitor the risk of imported invasive species, APHIS will use data sources such as the AQI monitoring system, the Port Information Network, the Agency's permit database, the U.S. Customs Service, the automated Commercial System (ACS), and the Automatic Targeting System (ATS). The Agency participates with Customs and maritime and air cargo lines and importers in the ACS for electronic transmission of cargo data and entry documents. The ATS places holds on cargo based on entry and manifest data stored in ACS and the Agency's regulation criteria. The ATS will facilitate trade by expediting tracking and enforcement of regulated agricultural commodities. Though these sources, the Agency will collect, analyze, and report results of inspection activities, preclearance activities, overseas compliance options, biocontrol measures, or other methods that lower the invasive species threat. Specifically, the Agency would use its Workload Accomplishment Database System and the National Agricultural Pest Information System to collect, analyze, and report the results of detection, acres treated, pathway analysis, risk, and results of alternative treatments. APHIS will track species entering the country through an expanded EXCERPT system, a computerized database of export certification information. This database facilitates U.S. export trade by providing certifying officials with online export summaries which provide information for issuing phytosanitary certificates. The performance indicators for the AQI program will also apply to the INSP line item. However, the means and methods to accomplish tasks and meet targets will change to handle additional tasks pertaining to increased data, analysis, and technology transfers.

GOAL 2: Quickly detect and respond to introductions of foreign agricultural pests and diseases or other emerging agricultural health threats, to minimize production losses and export market disruptions.

Program Activities: Animal Health Monitoring and Surveillance, Pest Surveillance and Detection, Animal and Plant Health Regulatory Enforcement, National Animal Health Emergency Monitoring System, Invasive Species (survey).

(In thousands of dollars)	FY 1998 Actual	FY 1999 Actual	FY 2000 Estimated	FY 2001 Estimated
Funding	\$72,753	\$74,237	\$79,100	\$92,711 *
FTEs	761	769	781	813**

^{*} Includes \$4,350 for Invasive Species

^{**} Includes 2 SY for Invasive Species

<u>Objective 2.1</u>: Animal Health Monitoring and Surveillance - To identify, maintain, and enhance the health status of U.S. livestock and poultry, to protect American food sources, and to strengthen their domestic and international marketability.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Identify, maintain, and enhance the health status of U.S. livestock and poultry				
Percentage of surveyed producers using information from the National Animal Health Monitoring System (NAHMS)	75%	86-89%	75%	75%

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

Performance measurements under the AHM&S program include the increase in the percentage of producers using NAHMS information. The percentage of producers using NAHMS information is expected to be maintained at 75%. Although the audience for the information is not expected to grow, the information provided will be more detailed and of better quality. The AHM&S program is diverse and includes many aspects of monitoring animal health. A number of performance measurements have been discussed for the program. Due to space limitations, however, only one measurement was selected. This measurement was selected because it demonstrates the relationship between providing valuable information on animal health to producers; having them use this information; and as a result, enhancing the health status of U.S. livestock and poultry. Information that has no value to producers will not be used by them, and will have no effect on the health status of U.S. livestock and poultry.

Means and Strategies: Funds for FY 2001 are being requested to enhance several components of the program including monitoring and surveillance (for classical swine fever, pseudorabies, and NAHMS); and quality assurance and certification (Johne's disease program). Only the increase for NAHMS surveillance impacts the performance measurement selected for this program. External factors which may influence the results of the program's measurements include producer participation in the Johne's program and the status of the classical swine fever situation on the Island of Hispanola and in other countries. APHIS will encourage producer participation in the Johne's program but has no final say on whether the producers will participate or not. APHIS provides technical assistance, as requested, to countries with animal pest and disease outbreaks, but does not have control over eradication efforts in other countries such as classical swine fever in Haiti or other countries.

Verification and Validation: APHIS will use NAHMS information, Agency tracking systems (Producer response rates at each stage of surveys, producer evaluations at the end of each study, requests from the public for NAHMS information, NAHMS WEB-site "hits", and the number of articles in journals and the press that cite NAHMS), program reviews, and customer surveys to measure and/or verify the performance goals. Due to the lengthy (and often difficult) process of getting customer surveys approved, APHIS will have to rely on Agency tracking systems and program reviews for the forseeable future.

<u>Objective 2.2</u>: Pest Surveillance and Detection - To use the best pest survey information available to make risk based decisions on the presence, absence and/or prevalence of plant pests and diseases of phytosanitary concern to the United States.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Use the best information to make risk based decisions on presence/absence/prevalence of diseases of phytosanitary concern				
Detections of new infestations of plant pests	261	334	270	350

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

The pest surveillance and detection program provides information supporting the export of U.S. agricultural products and pest management decision-making on presence/absence/prevalence of diseases of phytosanitary concern. This line item partially supports the infrastructure for APHIS' domestic plant protection and quarantine programs. Through this line item, APHIS conducts detection surveys for incipient infestations of exotic pests that could potentially cause economic damage if spread in the United States and delimiting surveys for pests that have successfully invaded the U.S. and may be expanding their range. For FY 2001, no funding increase was requested for this line item. However, APHIS projects an increase in new pest records based on activities conducted under its proposed Invasive Species line item, which will focus attention on the detection and spread of foreign pests.

Means and Strategies: Program resources are used to collect and provide information supporting pest management and the export of U.S. agricultural products. APHIS works in cooperation with the States on the Cooperative Agricultural Pest Survey (CAPS) project. In this project, APHIS and the States maintain the National Agricultural Pest Information System (NAPIS) database to facilitate timely retrieval of plant pest survey results and determine the need for and effectiveness of pest eradication programs. NAPIS data provides Federal and State officials, and the private sector, with information on exotic pest detection, and the management of cooperative pest control programs. APHIS will use this data to demonstrate cooperative survey results. Risk assessments will be used to substantiate survey needs. Reports on the use of NAPIS will track the effectiveness of information dissemination.

Verification and Validation: Data from the National Agricultural Pest Information System (NAPIS) database will be used to demonstrate cooperative survey effectiveness. Risk assessments will be submitted to substantiate survey need. Reports on the use of NAPIS will track the effectiveness of information dissemination. Regional and national program managers and analysts will review, evaluate, and verify indicator information. Recommendations will be provided to cooperators and field managers for consideration and action as appropriate. NAPIS data will be evaluated monthly. Program critiques and/or end-of-year reviews will be performed with direct input and participation from the scientific community and industry to evaluate this program's effectiveness.

<u>Objective 2.3</u>: Animal and Plant Health Regulatory Enforcement - To encourage and support compliance of APHIS programs, laws, and regulations by providing effective investigations and technical enforcement services.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Increase rates of compliance with Agency regulations				
Technical quality rating of completed case reports (scale of 1 to 3)	2.1	2.2	2.3	2.3

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

The data shown on this report are for investigations which are the primary steps leading up to an enforcement case.

Means and Strategies: Increased funding would allow APHIS to place investigators in key locations to respond more quickly to growing caseloads at ports-of-entry (FL, TX, and CA), and also to more quickly address animal welfare cases involving injuries or death to exotic animals such as elephants. Increased funding would also allow improved quality as additional resources could be devoted to technical reviews.

Verification and Validation: The technical quality measure is based on a review by an Investigative Specialist, graded on a scale of 1 to 3, where 2.0 is an acceptable case, legally sufficient for prosecution. **Objective 2.4: Emergency Management System** - This is a new activity to prevent, detect, and respond to animal health events that may have a sudden, negative economic impact on the livestock and poultry population of the United States.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Prevent, detect, and respond to animal health emergencies				
Number of States and Territories meeting "standard" for State emergency management systems	N/A	N/A	3	5

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

Five States/Territories will meet "standards" for State emergency management systems in FY 2001. Three States will meet this standard in FY 2000. This is a new performance measure.

Means and Strategies: Funds for FY 2001 are being requested for specialized training in emergency management, 32 dedicated animal health emergency managers in the field, a genetic fingerprint library,

veterinary epidemiological investigation tools, response planning, and the equipping of a National Emergency Management Operations Center in Riverdale, MD. The Agency's measurement for this program will focus on test exercises conducted to test APHIS' animal health emergency response capabilities. External factors which may influence results are uncooperative (or under funded) State and local governments and the actual number of Presidential declared emergencies that may occur in FY 2001. APHIS efforts in exclusion and testing activities are to ensure no foreign animal disease outbreaks occur, but APHIS has no control over natural occurrences such as floods, hurricanes, and biologic terrorism.

Verification and Validation: Peer reviews, surveys (a survey measuring expectations of animal industries and consumers has not yet been developed -- that is why satisfaction rate has not been stated as a performance measure yet), and test exercises will be used. Once the survey is developed, APHIS anticipates a fairly lengthy waiting period for approval. Until such time, the Agency will rely on peer reviews and test exercises.

<u>Objective 2.5</u>: Invasive Species (survey) - To enhance APHIS' ability to perform its mission as it relates to the surveillance and detection of invasive species in support of Presidential Executive Order 13112 and the National Plant Board's recommendations from their review of APHIS' Pest Safeguarding System.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Enhance APHIS' ability to perform its mission as it relates to the surveillance and detection of invasive species in support of Presidential Executive Order 13112 and the National Plant Board's recommendations from their review of APHIS' Pest Safeguarding System.				
New agreements to detect invasive species	N/A	N/A	N/A	N/A
Detections made as a result of these agreements	N/A	N/A	N/A	N/A

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base is also supported.

APHIS conducts detection surveys for incipient infestations of exotic pests that could potentially cause economic damage if spread in the United States and delimiting surveys for pests that have successfully invaded the U.S. and may be expanding their range. The INSP detection and response initiatives will greatly increase cooperative agreements to support and improve data collection on new introductions of INSP with high social and economic impacts. APHIS will use this data to help determine baseline plant health indicators, refine survey methods, and develop recommendations to improve eradication and/or management programs, and reduce costs of INSP to U.S. taxpayers. The agreements will be issued to organizations with missions to protect environmental biomes and agricultural production, such as Native American Indian groups, State and other Federal agencies, and industry. The agreements will also improve the quality and quantity of data on INSP distribution within the United States, and improve database architecture, infrastructure, validity, and security. This program provides information supporting the export of U.S. agricultural products and pest management decision-making On presence/absence/prevalence of diseases of phytosanitary concern. As this is a new program, targets for the proposed measures have not yet been established.

Means and Strategies: A new infestation is defined as any new national/State/County record of a pest, whether new to the U.S. or already established in the U.S. but in a different location. APHIS cooperates with the States on the Cooperative Agricultural Pest Survey (CAPS) project. This project maintains the National Agricultural Pest Information System (NAPIS) database to facilitate timely retrieval of plant pest survey results and determine the need for and effectiveness of pest eradication programs. NAPIS data provides Federal and State officials, and the private sector, with information on exotic pest detection, and the management of cooperative pest control programs. An external factor which could hamper the program's success toward attaining its goal would be the extent to which various private, State, Federal, and industry groups cooperate with APHIS and with each other. APHIS will mitigate this factor by increasing its linkages to State Invasive Species Councils and building partnerships with various industry groups to build support for this program.

Verification and Validation: NAPIS data demonstrate cooperative survey results and risk assessments substantiate survey need. Reports on the use of NAPIS will track the effectiveness of information dissemination. Regional and national program managers and analysts will review, evaluate NAPIS data monthly to and verify indicator information. Recommendations will be provided to cooperators and field managers for consideration and action as appropriate. Program critiques and/or end-of-year reviews will be performed with direct input and participation from the scientific community and industry to evaluate this program's effectiveness.

GOAL 3: Effectively manage certain plant and animal pests and diseases and wildlife damage which pose risks to agriculture, natural resources, or public health.

Program Activities: Aquaculture, Biological Control, Boll Weevil, Brucellosis, Emerging Plant Pests, Golden Nematode, Gypsy Moth, Noxious Weeds, Pink Bollworm, Pseudorabies, Scrapie, Tuberculosis, Wildlife Services Operations, Witchweed

(In thousands of dollars)	FY 1998 Actual	FY 1999 Actual	FY 2000 Estimated	FY 2001 Estimated
Funding (in thousands of dollars)	\$97,103	\$89,863	\$90,548	\$103,990
FTEs	783	712	696	640

<u>Objective 3.1</u>: Wildlife Services Operations - To provide Federal leadership in managing problems caused by wildlife. To reduce damage caused by wildlife to lowest possible levels while, at the same time, reducing wildlife mortality.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Protect property, natural resources, and crops from damage caused by beavers				
Losses avoided in millions of dollars	N/A	21.97	20	20
Satisfy customers				
Percentage of Wildlife Services customers Satisfied (each year a different customer base is surveyed)				

Direct control and technical assistance customer base	87%	N/A	N/A	N/A
Livestock customers who received direct assistance	N/A	89%	N/A	N/A
Protect threatened and endangered species from harm caused by wildlife				
Number of species	N/A	N/A	80	75
Percentage of threatened/endangered species projects where population is increased or Maintained	84%	93%	90%	90%
Protect human health and safety from wildlife risks				
Increase passenger safety by reducing the risk of aircraft striking wildlife (mammals and birds) High Impact Agency Goal	75% reduction for 63% of projects	75% reduction for 63% of projects	70% reduction for 60% of projects	70% reduction for 60% of projects
Protect public health by reducing confirmed canine rabies cases in orally vaccinated areas in Texas (% of cases)	97%	95%	95%	50%

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

The program goal is to reduce damage caused by wildlife to the lowest possible levels, while simultaneously reducing wildlife mortality. While the Wildlife Services program continues to provide assistance protecting livestock from wildlife predation, demands for a greater variety and quantity of services have increased over the last decade. Expanding wildlife populations, shifting distributions of wildlife species, society's choices to protect one species over another, the increase of invasive wildlife species, increased health threats to man from wildlife born diseases, and the increase of invasive wildlife species are only a few of the factors leading to this increased demand for services. Another factor, human encroachment on wildlife habitat (increased building of suburban neighborhoods in areas that are still largely rural) has significantly increased interactions of humans and wildlife, and thus, demand for greater and more varied services from the program. This interaction causes some individuals to insist upon more protection for wildlife, while others want more help with wildlife related conflicts. Resolving these conflicts has become more costly and complex in recent years, due to the severe limits some states have placed on the kinds of tools and methods wildlife specialists can use to manage wildlife damage.

As a result of increased demand, the Wildlife Services program has become quite diverse. Examples of this diversity include the human health and safety programs like the oral vaccination program for canine rabies in Texas, the raccoon rabies hotline in New England, and direct control and technical assistance to airport managers to reduce the risk of wildlife strikes to passengers and aircraft. There is also an increased demand for Wildlife Services expertise in helping protect various threatened and endangered species from death or injury caused by wildlife. Projects to protect these species are generally collaborative, since, in accordance to the Endangered Species Act, all federal agencies are required to do everything possible to assist in endangered species conservation. In fact, it is not unusual to have several federal or state agencies or private interest groups involved in these efforts.

The customer service results reported for FY 1998 represent the satisfaction of both direct control and technical assistance customers. The customer service results reported for FY 1999 represent the satisfaction of livestock customers who received direct assistance from Wildlife Services. In both cases, the source of the satisfaction data were surveys funded by the Wildlife Services program. Unfortunately, due to limited funding, the program is not currently projecting to fund additional customer satisfaction surveys in the years covered by this plan.

The current objective statement under the goal 3 WS Operations line item for airport direct control work reads as follows: "Percent reduction in risk from aircraft/wildlife strikes through direct control projects." In the FY 1999-2000 annual plan it is expressed as a single percentage rate of 75%. This does not accurately reflect the results from WS operational work at airports. It is not appropriate to aggregate individual project results, describing "reduction in risk" as a single number and then to average these figures. Frequently many airports have multiple operational control projects involving more than one wildlife species, and for these different species "reduction in risk" may be measured differently. For one project/species, the "risk reduction" indicator may be "number of wildlife strikes with aircraft", while for another project the indicator may be "number of near misses" or "reduced presence of the wildlife species". Thus, it is not accurate to take an average of different measurement indicators for the variety of projects and species. Results (risk reduction) are determined on a project basis. Results represent tallies of the number of projects where WS intervention resulted in reduced risk above and below a certain level. The new measure is expressed as "X% of risk reduction for Y% of projects".

Means and Strategies: Wildlife Services takes a highly collaborative approach to achieve its goal of reducing wildlife damage. Wildlife Services is in partnership with many federal and state agencies and local governments to achieve results. Some examples of these partnerships include the Department of Defense and the Federal Aviation Administration when conducting work at various airports to reduce airstikes with wildlife; the Fish and Wildlife Service, state wildlife agencies, natural resource agencies, and local governments when protecting threatened or endangered (T&E) species from harm caused by wildlife; and the Centers for Disease Control and Prevention and state and county public health services when working on issues of public health and safety, such as rabies control. The program also works with individual resource or property owners on a variety of issues, using a cost-sharing approach for many cooperators (clients), including livestock owners in many states. It is also very common for Wildlife Services to partner with industry groups, such as the National Sunflower Association, American Sheep Industry, the National Aquaculture Industry, Catfish Producers of America, and universities like Utah State. These partnerships provide a more unified dialogue between industry stakeholders and Wildlife Services, and they also allow the program to more effectively address specific needs with the latest tools and methods associated with wildlife damage management. The WS' National Wildlife Research Center (NWRC) and various university research programs are instrumental in this effort. In these collaborative efforts, each group brings a specific expertise to the issue at hand. For Wildlife Services this specific expertise is how to resolve wildlife damage management conflicts. So, for example, while the Fish and Wildlife Service has an overall plan to increase a T&E species, Wildlife Services expertise may be necessary to prevent predation by wildlife on that T&E species.

For FY 2001, WS will shift responsibility for some of the funding for its programs onto State, local and private cooperators. The budget requires a reduction of \$2,712,000.

Verification and Validation: Wildlife Services relies heavily on data from many outside sources, including other federal and state agencies, industry groups, and individuals. This makes data verification and validation difficult in certain instances. For example, the Fish and Wildlife Service develops and maintains population estimates for all threatened and endangered species, and the FAA is responsible for collecting and tracking all information related to wildlife air strikes. In the FAA's case, air strike reporting is voluntary by the airlines, and experts indicate that underreporting is significant; only about 20% of actual air strikes ever get reported. Often times, what this means, is when Wildlife Services begins working at a particular airport, the number of reported strikes appears to increase initially, based on the historical data collected at an airport. In reality, it isn't that there are more strikes, just better recording of wildlife strikes to aircraft. Because of this, the 1999 data represents a mixture of indicators that illustrate WS impacts at airports where it conducts direct control work. In cases where wildlife strike data has been collected for

many years and most of the actual strikes get reported, strike rates are reported as an indicator of WS results (for about 16% of projects). In most cases, WS biologists are using changes in wildlife presence at the airports to indicate whether WS has been effective in reducing the risk of wildlife strikes (for about 58% of projects). Regardless of the indicator used to measure reduced risk (strikes or wildlife presence), the WS program has taken steps to ensure standardization in calculating and reporting these numbers. Standard forms were developed to collect the information that included prescribed formulas to complete the calculations. Overall, there is consistency in the way results were calculated and reported.

The Wildlife Services program does, however, attempt to validate and verify information as much as possible. The program has resources dedicated at the Sandusky Research Station to working with the FAA database, refining it, and checking its accuracy and reliability. In cases of livestock predation and other agricultural damage, field employees often visit individual ranches and farms to verify losses caused by wildlife, and then report the information into the internal Management Information System (MIS). Wildlife damage to other resources are also reported by customers to Wildlife Services and are also reported through the MIS system. The MIS is carefully analyzed and adjusted by the MIS Working Group (a review group consisting of various program managers and MIS Center personnel) and the Operational Support Staff at program headquarters. These groups develop national summary information. The program intends to expand the capabilities of the MIS, allowing for data fields around important values such as losses avoided, etc. to be represented and reported.

For years, WS employees have been collecting data on the actual damage beavers cause to various resources in their States, although it is known that even the WS database notes only a fraction of the total damage because much damage is never reported to WS. The beaver data represents various States (13 overall) estimates around losses prevented by WS intervention. Several of the States record data for damage prevented to different resources. Since the resource protected varies from State to State, it is not possible to prescribe a single method of calculating prevented losses for beaver work. Also, many States' estimates are based, at least in part, on data developed by other State agencies and private industry groups. The reliability and validity of these estimates are dependent on these data sources. In general, program managers tend to characterize their results as rather conservative.

Verifying customer satisfaction, through formal, quantitative surveys will be more difficult than in previous years due to the more stringent restrictions placed on several federal agencies, including the USDA, by the Administrative Procedures Act (APA) and the Paperwork Reduction Act (PRA). Because of this, it is more likely that program managers will rely on informal feedback from customers about program effectiveness. Wildlife Services plans on possibly including customer satisfaction questions in surveys that NASS conducts for the program, but these data will not always be representative, in a given year, of the entire spectrum of program customers. Some data may be specific to a particular industrial or agricultural resource category such as cattle or sheep producers, crop producers, etc. At other times it may cross-cut several resource types.

Wildlife Services program managers use a variety of reliable and tested methods of collecting and analyzing data. Wildlife Services has contracted with NASS for a number of years to collect statistically valid information around a variety of agricultural resources, and their associated wildlife damage. Wildlife Services, along with various state agencies, also employs sampling techniques when conducting wildlife disease surveillance and monitoring programs, and when determining crop damage caused by wildlife. The program has also developed a standard decision model used by its managers when considering options for various projects, and employees are well trained in the NEPA evaluation process.

<u>Objective 3.2</u>: Aquaculture - To assist the aquaculture industry in improving the health of aquatic livestock, and to facilitate the movement of aquatic animals in international commerce. To reduce bird damage to aquaculture while ensuring the continued viability of migratory bird species.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Facilitate the movement of aquatic animals in international commerce				
Number of export markets receiving aquaculture products	50	50	50	50

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

This is a shared line item between APHIS' Wildlife Services (WS) and Veterinary Services (VS) organizations. WS' goal is to reduce wildlife damage to aquaculture while ensuring continued viability of migratory bird species and other affected wildlife species. Veterinary Services' goal is to assist the industry in improving aquatic livestock health and to facilitate the movement of aquatic animals in international commerce. APHIS will increase the number of voluntary certification programs by 10. At the same time, APHIS expects the number of export markets receiving products to increase by 15. This performance goal will demonstrate that as the number of certification programs increase, new markets will open up.

Means and Strategies: In FY 2001, the aquaculture program for WS will receive a decrease of \$200,000.

Verification and Validation: Periodic customer satisfaction surveys will be conducted, with additional information to be derived from internally conducted data analysis. More accurate and accessible data regarding wildlife damage control and assistance activities is contingent on the implementation of the Management Information System 2000 database project.

<u>Objective 3.3</u>: **Biological Control** - To safeguard plant and animal resources from exotic pests and diseases and manage pests to protect plant resources.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Develop Biocontrol programs to prevent/slow pest establishment and spread				
Number of pests for which biocontrol programs are developed, implemented, or transferred	9	N/A	11	11

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

APHIS' biological control programs are an essential component of the national effort to safeguard

American agriculture and the environment from harmful invasive insects, diseases, and weeds. Biological control programs help prevent/slow pest establishment, spread, and impact on U.S. agriculture.

Means and Strategies: Resources are used to develop and improve methods and systems to: (1) import, guarantine screen, and mass rear and release promising and safe biological control agents: (2) survey and evaluate biological control releases for environmental effects and economic impacts; and (3) develop and integrate biological control into pest management systems and transfer these technologies to the States and private sector. The Agency works with international organizations and other Federal agencies, the States, and universities to conduct projects. For example, ARS and the Cooperative State Research Extension & Education System (CSREES) land-grant university scientists conduct basic research on pests, biological control agents, and their interactions. APHIS uses this information to develop and implement biological control programs, ultimately transferring the technology to the States and private sector for further implementation. External factors that could influence the attainment of goals include: (1) delays in obtaining required permits or satisfying other legal requirements for release of biological control agents: (2) lack of safe and effective biological control agents: (3) insufficient research to successfully develop program; and (4) insufficient resources to adequately implement and transfer program. APHIS may mitigate these external factors by: (1) increasing the number of APHIS staff responsible for conducting/coordinating environmental assessments and issuing permits; (2) promoting an educational effort for early consultation between biological control researchers and regulators (APHIS, FWS, EPA, etc.); (3) establishing a mechanism to direct research (i.e., get the agencies to jointly determine appropriate targets followed by coordinated research and implementation efforts); and (4) improving the coordination between agencies, resulting in cost-efficiencies.

Verification and Validation: Initially, performance goals will detail the extent to which biological control technologies have been successfully developed and transferred. As data becomes available, performance goals will include extent to which: (1) target pests have been controlled and (2) economic looses from targeted pests have been reduced and avoided. Program transfer status and survey and evaluation data will be tracked and reported annually. Cost/benefit analysis and economic evaluations of programs will be conducted and will be reported when available. Program critiques and/or end-of-year reviews will be performed with direct input and participation from the scientific community and industry to evaluate this program's effectiveness. In addition, regional and national program managers, laboratory directors, and program analysts will review, evaluate and verify indicator data. Recommendations based on verified data analysis will be provided to laboratories and field operations for consideration and/or execution as appropriate.

<u>Objective 3.4</u>: Boll Weevil - To eradicate boll weevil from all cotton growing areas in the U.S. and Northern Mexico by the year 2003, in cooperation with States, the cotton industry, and Mexico.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Eradicate Boll Weevil				
Cumulative acres eradicated of Boll Weevil (in thousands)	4,500	4,700	5,300	6,000

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

APHIS will technically assist and administratively support all active program areas, work with all cotton-producing States to coordinate active program areas and prepare for future expansion, and ensure that all environmental documentation is completed. Of the nearly 14 million acres of cotton in the United States; five million acres are in the post-eradication phase, six million acres are in the active phase, and three

million acres are proposed for future eradication.

Means and Strategies: Resources include staffing and funding for APHIS' portion of the cooperative effort - the Agency may contribute up to 30 percent of program costs with States and industry contributing at least 70percent. Growers in new program areas may be required to provide up to 100 percent of program costs. The FY 2001 goal for cumulative acres eradicated is 700,000 more than FY 2000's projection, despite a funding reduction for the program. This is because the Farm Service Agency (FSA) offers low-interest loans to growers to enable them to continue the program. Therefore, resources would still be available for eradication. From FY 1996-99, the FSA loaned over \$100 million to growers. These loans have been a critical factor in allowing eradication programs to continue. APHIS cooperates with State agriculture departments, land grant universities, State and Federal agencies, the cotton industry, and Mexico. Although this program is mostly grower funded and managed, APHIS provides critical oversight, coordination, and technical support for boll weevil eradication. Specifically, the Agency helps to administer cooperative agreements and provides support in the form of loaned government vehicles and equipment, and environmental monitoring activities. In addition, ARS provides research support on weevil biology and provides technical advice and expertise to local program managers. Also, the Extension Service provides important information to growers. For FY 2001, APHIS requested a \$12.2 million decrease. Fewer resources will be necessary since the Agency is in the final stages of transferring full operational responsibility to the growers in eradicated and non-infested areas. APHIS will maintain oversight and technical support responsibilities in these areas, but will discontinue cost-sharing program activities where the boll weevil no longer exists. In addition, APHIS will provide an equitable, but less than customary cost-share percentage, to all active eradication zones. The Agency will contribute toward program expansion into new areas if funds are available after addressing the financial needs of all active eradication zones. APHIS expects to eradicate boll weevil from all cotton growing areas of the U.S. and northern Mexico by 2003. The program's continued oversight in eradicated and non-infested areas would demonstrate APHIS' ability to effectively manage plant pests which threaten agriculture, natural resources, or public health. Some external factors which may hinder APHIS' attainment of program goals include tropical storms, which could re-distribute a number of weevils into previously eradicated areas, and the lack of an organized eradication program in Mexico. This latter situation has hampered area-wide control efforts in northeast Mexico and could, over time, threaten the southernmost production areas in the United States. APHIS would mitigate this factor by providing technical expertise and conducting trapping along the Mexican border to help ensure that Mexican infestations do not endanger domestic eradication efforts in south Texas.

Verification and Validation: Performance data is based on regular communication with and status reports from the various program zones. This data is collected and tracked by the Boll Weevil Foundations and forwarded to APHIS headquarters. Projections for future years are based primarily on historical infestation levels and the type of fields within a particular zone. Data would be affected by the trap density employed by a particular program; an optimal trap density would allow adequate detection at a reasonable cost, yet not pose an excessive risk of infestation.

<u>Objective 3.5</u>: **Brucellosis** - To continue brucellosis eradication procedures in domestic cattle, swine, and bison for at least 5 to 10 years after eradication of the disease from all States, to eliminate any disease sources found and prove to the international community that the disease has been eradicated.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Eradicate Brucellosis				
States in Class Free Status (Brucellosis) - includes the District of Columbia, the U.S. Virgin Islands, and Puerto Rico	45	47	48	53

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and

USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

The success of this program has been one of APHIS' greatest achievements. When we began the program, one domestic cattle herd out of every eight in the United States was infected. Through a cooperative Federal/State/Industry effort (industry and States must pay at least 40 percent of program costs) and careful herd management, the last pockets of infection in the remaining States are being eliminated. By the end of 2000, no herds will be under quarantine and all 51 States/Territories will be in Class Free status.

Means and Strategies: With reduced funding, APHIS will depopulate newly infected cattle herds, carry out activities in Yellowstone National Park (bison), and conduct activities in cervids, non traditional livestock, and others. Focus shifts from domestic cattle to swine, bison, and other non traditional livestock species. Monitoring and surveillance for brucellosis will still be carried out in the AHM&S program. Threats to the success of the program include reduced State cooperator funding and infection in wildlife (for example: bison in Yellowstone and reindeer in Alaska) and non traditional livestock species. APHIS has no control over States funding levels. We are working with the National Park Service to set up a cooperative project in Yellowstone National Park to deal with brucellosis in the bison of the Park.

Verification and Validation: Data sources are state reviews and monthly reports of activities related to epidemiological testing, herd management plans, quarantines, and releases.

<u>Objective 3.6</u>: Golden Nematode - To maintain a risk based management system to prevent the spread of golden nematode and new infestations in potatoes, and to facilitate international and interstate agricultural shipments.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Increase acres surveyed to prevent spread of Golden Nematode				
Number of acres surveyed for Golden Nematode	3,352	3,761	6,200	6,200

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

This program regulates crops in New York State (NYS) that are infested with golden nematode (GN) and prevents the spread of the nematode to other potato-producing States. Early detection of new infestations and entering these fields into the treatment program using GN-resistant potato varieties is the primary means of slowing the spread of GN. However, it is difficult to determine and estimate precise figures on the number of acres planted with GN resistant varieties, since this information is not always provided by growers. Through this program, APHIS protects trade markets for GN host crops by ensuring that these crops are not shipped from areas known to be infested with GN. Approximately \$4.6 billion in GN host crops are exported or shipped interstate each year, which could not be shipped from GN infested areas. This program protects several crops in NY State, particularly potato, tomato, and eggplant. Production of these crops is worth \$80 million annually in NY State and \$5.7 billion nationally. The inclusion of other

soil-bearing commodities that could come under regulation, such as nursery and ornamentals, sod, onions, carrots, and beets would increase this figure at least threefold.

Means and Strategies: Increased survey activities, coupled with APHIS' enforcement of regulations and sanitary requirements, will likely prevent the spread of the nematode to other potato producing States. ARS is responsible for developing GN-resistant varieties and new treatments for treating equipment; APHIS is responsible for regulatory survey and control of GN; and, the State of New York enforces quarantines on infested lands and mandates resistant variety crop rotations with growers.

Verification and Validation: Program critiques and/or end-of-year reviews will be performed with direct input and participation from the scientific community and industry to evaluate these programs' effectiveness. In addition, regional and national program managers, officers and analysts will review, evaluate and verify data gathered to support performance measures. Recommendations based on verified data analysis will be provided to field operations for consideration and/or execution as appropriate.

<u>Objective 3.7</u>: **Gypsy Moth** - To manage the risk of artificial spread of the European gypsy moth into uninfested areas of the United States.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Reduce the number of Gypsy Moth infestations				
New isolated infestations exceeding 640 acres	3	3	4	4

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

Performance goals will demonstrate the program's ability and/or capability to manage the risk of artificial spread of the European Gypsy Moth. This measure demonstrates the program's capability to adequately detect isolated infestations before they expand beyond 640 acres (1 square mile). APHIS is responsible for control activities for all infestations not exceeding 640 acres that occur on State or private land. Infestations not meeting these criteria are handled by the U.S. Forest Service.

Means and Strategies: The European Gypsy Moth (EGM) program includes regulatory, survey, and control activities in cooperation with the U.S. Forest Service (USFS), ARS, and the States. It protects the timber industry from yield losses and increased production costs caused by EGM damage. Regulatory activities are conducted within the generally infested area and as part of the highly successful Slow the Spread (STS) project, which is operated primarily by the USFS. APHIS' role in the STS project has been funded through appropriated funds since FY 1993. This cooperative project has significantly reduced the rate of spread over a large geographical area. For example, gypsy moth spread in the mountains of Virginia and West Virginia has been reduced by 60 percent -- from the historical rate of 13 miles per year to only 5 miles per year. For each mile the spread rate is reduced, the annual equivalent value of benefits per mile of frontier is approximately \$30,000, based on a 1996 economic assessment. Because of this success, cooperators hope to expand the project and eventually implement it nationally. APHIS surveys support the regulatory program, provide a basis for eradication treatments, and detect and delimit isolated populations outside of the generally infested area.

Verification and Validation: Program critiques and/or end-of-year reviews will be performed with direct input and participation from the scientific community and industry to evaluate these programs' effectiveness. In addition, regional and national program managers, officers and analysts will review,

evaluate and verify data gathered to support performance measures. Recommendations based on verified data analysis will be provided to field operations for consideration and/or execution as appropriate.

For gypsy moth, APHIS and the USFS will cooperate in obtaining data to demonstrate Slow the Spread results. The data are based on the calendar year and are derived from several sources. A system to better capture data is being developed. The data for 1999 is compiled from various State records, the NAPIS database, and Forest Service records.

<u>Objective 3.8</u>: Emerging Plant Pests - To maintain infrastructure flexibility to deal with a range of plant pest infestations not otherwise covered as an individual budget line item.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Eradicate Asian Longhorned Beetle (ALB)				
Asian Longhorn Beetle infestation sites in eradication program	5	7	9	9

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

This program provides mechanisms for response to plant pests and diseases not covered under a specific line item. Program activities include delimiting surveys, control or eradication treatments, epidemiological studies, laboratory diagnostics, and parasite releases to combat emerging plant pests. Also, APHIS conducts activities to restrict the movement of commodities that could spread a particular pest. The Citrus Canker and Asian long horned beetle Programs will be at least partially funded from the Emerging Plant Pests line item based on our FY 2001 request.

Means and Strategies: This is a Federal-State eradication, prevention, survey and control program (depending on type of disease or pest). Resources are devoted to conducting delimiting surveys, control or eradication treatments, epidemiological studies, laboratory diagnostics, and parasite releases to combat emerging plant pests. APHIS cooperates with ARS, who is responsible for conducting research studies on emerging plant pests. Before an ALB infestation site can be officially terminated from the eradication program, it must undergo five years of negative detection and delimiting surveys (which are conducted within the regulated areas) and two years of negative biometric surveys (which are conducted outside the regulated areas).

Verification and Validation: Program critiques and/or end-of-year reviews will be performed with direct input and participation from the scientific community and industry to evaluate these programs' effectiveness. In addition, regional and national program managers, officers and analysts will review, evaluate and verify data gathered to support performance measures. Recommendations based on verified data analysis will be provided to field operations for consideration and/or execution as appropriate.

For emerging plant pests, APHIS will use its National Agricultural Pest Information System (NAPIS) to access information on the number of acres surveyed and infestations detected. Reports of risk and pathway analysis will be conducted. NAPIS will be used to report the success of management activities. Reports will include infestations, infestations outside regulated areas, and acres treated.

The experience gained in conducting the cooperative ALB eradication program in previous years led to changes in 1999. These changes include the following: All survey methods were improved by utilizing

both bucket trucks and tree climbers to conduct surveys in the upper canopy of host trees. Ground visual surveys are estimated to be approximately 30% effective in determining ALB infestations. The addition of bucket trucks to the surveyprocedures raises the efficiency of survey to 50%. When tree climbers are used in conjunction with ground and bucket trucks survey efficiency increases to approximately 75%. As a result of the survey improvements the program produced higher quality and more reliable data than in previous years.

<u>Objective 3.9</u>: **Noxious Weeds** - To detect and delimit incipient infestations of exotic weed species, and to support weed management initiatives for those species which may damage agriculture and native habitats.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Minimize the introduction and establishment of foreign weeds in the U.S.				
New weed infestations detected/assessed through the National Early Warning System	9	12	20	20

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

The National Early Warning System, when fully implemented, will include establishing: a Federal Interagency Rapid Response Weed Team; an APHIS Regional Weed Team to determine Agency priorities regarding weed prevention and eradication; State Interagency Weed Teams to establish weed prevention, eradication, and management priorities in each State; and State Weed Detection and Reporting. This program is critical to the establishment of an effective noxious weeds prevention and control strategy for the United States.

Means and Strategies: Resources are being directed toward developing a Weed Implementation Plan. This plan will permit APHIS to explore innovative technologies to minimize the introduction and establishment of foreign weeds. It includes new activities that will allow APHIS to explore innovative technologies in weed management. Specific activities include regulating weeds that threaten agricultural or other areas, regulating listed weed species, excluding designated weeds that are absent from or in limited distribution in the United States, and regulating the interstate movement of designated weeds for which no control program has been established. These new activities are designed to satisfy concerns that have been expressed by several APHIS customers, including several State Departments of Agriculture, the Federal Interagency Committee for the Management of Noxious and Exotic Weeds, and the Office of Technology Assessment. Through the plan, APHIS will be able to demonstrate its firm commitment to addressing introduced weeds that affect the sustainability of agricultural production and biodiversity of natural ecosystems. In FY 1998, APHIS began working with the Invasive Species Specialist Group of the World Conservation Union to create a global early warning system for invasive species. The U. S. early warning system for invasive species under development through the State Invasive Species Council is regarded as a hemispheric model and major component of the global system. Cooperative efforts include AMS (regional seed labs) and ARS (accumulation /evaluation of species data). Affected States cooperate with APHIS in all control and eradication programs at varying levels. The \$1.7 million increase for noxious weeds supports the FY-00 Presidential Executive Order on Invasive Alien Species. The increase will enable APHIS to begin developing a national rapid assessment and response system for invasive alien plants in the United States. This system is critical to the establishment of an effective noxious weeds prevention and control strategy.

Verification and Validation: Program critiques and/or end-of-year reviews will be performed with direct input and participation from the scientific community and industry to evaluate these programs' effectiveness. In addition, regional and national program managers, officers and analysts will review, evaluate and verify data gathered to support performance measures. Recommendations based on verified data analysis will be provided to field operations for consideration and/or execution as appropriate.

APHIS will use its National Agricultural Pest Information System (NAPIS) to store information on acreage surveyed and infestations detected. Also, the Agency will complete reports of risk and pathway analysis and provide them to program managers. NAPIS will also be used to evaluate the success of management activities. Reports will include infestations, infestations outside regulated areas, and acres treated. Each month the program will analyze and use survey and treatment data from NAPIS to evaluate the effectiveness of APHIS programs in slowing the spread of noxious weeds. WADS and NAPIS data will also be collected and analyzed monthly to measure the effectiveness of regulatory activities.

<u>Objective 3.10</u>: Pink Bollworm - To prevent infestations in the San Joaquin Valley of California, and provide risk-based, area wide management of Pink Bollworm cooperatively with industry.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Minimize infestations of Pink Bollworm outside of regulated area				
New infestations of Pink Bollworm outside regulated area	2	0	2	2

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported. APHIS will report infestations detected.

Means and Strategies: Program resources are being used to develop, demonstrate, and transfer technologies for area wide bollworm management with States, grower organizations, and cotton producers. The program is a cooperative effort involving survey, regulatory, and control activities. Pheromone sex lure traps are placed over extensive cotton acreage. In the San Joaquin Valley, sterile pink bollworms are released to effectively eliminate reproduction. Cultural practices (crop rotation, stalk destruction, alternate planting dates, and irrigation restrictions) are also used to control the pest population. California enforces plow-down and planting regulations. APHIS enforces the national quarantine (surveys and regulatory activities) and manages the sterile moth rearing facility in Phoenix, Arizona, and the moth releases in the San Joaquin Valley, California. In the future, more focus will be placed on evaluating the effectiveness of sterile moth releases and other biologically based techniques for improved control and eventual eradication of the pest.

Verification and Validation: Program critiques and/or end-of-year reviews will be performed with direct input and participation from the scientific community and industry to evaluate these programs' effectiveness. In addition, regional and national program managers, officers and analysts will review, evaluate and verify data gathered to support performance measures. Recommendations based on verified data analysis will be provided to field operations for consideration and/or execution as appropriate. A risk analysis will be completed and provided to program managers. Regional and national program managers and analysts will review, evaluate, and verify indicator data. Recommendations based on verified data analysis will be provided to field operations for consideration and/or execution as appropriate. An annual program critique will be held with cotton growers representatives organized through the industry's "spokesagency" - the National Cotton Council.

Objective 3.11: Pseudorabies - To eradicate pseudorabies from the swine population of the U.S.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Eradicate Pseudorabies				
Number of Stage V States	31	33	41	50

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

There are five stages to the pseudorabies eradication program. The final stage is Stage V, in which a State is declared pseudorabies free. To qualify for this stage, a State must document that it has been free of pseudorabies for 1 year since recognition of State IV.

Means and Strategies: Resources will allow APHIS to continue to identify any remaining infected herds through monitoring programs and conduct epidemiological tracing and investigation of newly discovered herds. One million dollars will be shifted to the AHM&S line item for increased pseudorabies surveillance which will ensure early detection and response to newly infected herds.

Verification and Validation: Quarterly reports submitted by each State on their eradication activities are used by APHIS to prepare a quarterly national Program progress report (VS Form 7-1, Pseudorabies Quarterly Report). The data can be considered very accurate and reliable.

Objective 3.12: Scrapie - To control and ultimately eradicate scrapie from the U.S.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Eradicate Scrapie				
Flocks advancing in the Voluntary Scrapie Flock Certification Program	275	377	400	600

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

APHIS continues to progress towards eradication of this sheep disease by strengthening the regulatory program and by supporting increased enrollment in the voluntary certification program. The Voluntary Scrapie Flock Certification Program (VSFCP) is designed to monitor participating flocks for 5 years or more and to identify flocks free of scrapie. In FY 2000, APHIS will initiate an accelerated scrapie eradication program to eliminate scrapie from the sheep population of the United States over a 7 year period through an enhanced slaughter surveillance program with trace back to the flock of origin. The origin flock would be tested using the live animal tests (when approved). The epidemiological investigations of these flocks would generate additional flocks to test and increase the number of newly identified source and infected flocks. Based on summary data provided to APHIS by the Agricultural

Research Service (ARS), we anticipate that APHIS will be able to use the live animal test for scrapie as soon as ARS provides to APHIS the complete data that we have requested so that it can be reviewed and as soon as the National Veterinary Services Laboratory completes installation of the necessary equipment and is able to replicate ARS' results. APHIS plans to initiate large scale field testing of the live animal tests as soon as funding is approved.

Means and Strategies: For FY 2001, APHIS requested an increase of \$5 million to eradicate scrapie from United States. Two major issues that will greatly impact the success of the program are the validation of the live animal tests and the final clearance of the proposed rule. The proposed rule provides for the identification of sheep in interstate commerce making it possible to trace back infected animals from slaughter or that are sold as breeding stock. Agricultural Research Service (ARS) has developed and is working to validate a scrapie live animal test using third eyelid biopsy, and a live animal blood assay using capillary electrophoresis (CET). APHIS will use the increased funding for diagnostic support including the expansion of the National Veterinary Services Laboratories (NVSL) diagnostic capacity, test validation, contract testing with State and other laboratories, and the purchasing of animals for diagnostic purposes; to conduct slaughter surveillance and to service the anticipated increase in the number of known infected and source flocks identified; for animal identification and regulatory enforcement needed to trace back positive animals; and for insurance claims and indemnification for animals. The regulation which will allow the Agency to idemnify owners of sheep and goats has been drafted and is undergoing clearance and is expected to be finalized in FY 2000.

Verification and Validation: The data was generated by counting all flocks enrolled in the complete monitored category of the Voluntary Scrapie Flock Certification Program whose status date was not changed during FY 1999 or that had certified status. Status date changes are reported by the area offices based on flock owner reporting or inspection reports completed by Veterinary Services (VS) personnel. The data is provided by the VS area offices either through direct database entry or by fax or e-mail to the national program staff. A small degree of error may be present due to late reporting or data entry errors.

<u>Objective 3.13</u>: **Tuberculosis** - To eradicate tuberculosis from the bovine population of the U.S. by the year 2002.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Eradicate Tuberculosis				
States in Accredited-Free Status (including	45	46	49	49
U.S. Virgin Islands and Puerto Rico)	10	40	70	43

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

When the program first began in 1917, tuberculosis resulted in more losses than all other livestock diseases combined. From a public health aspect, many cases of tuberculosis in humans were caused by drinking raw milk from infected cows. In the first year of the program, 4.9 percent of cattle subjected to the tuberculin test reacted positively. By 1930, 1.77 percent were reactors, a reduction of 64 percent. The current reactor rate is estimated at .003 percent. This reactor rate demonstrates a cumulative reduction of 99.9 percent. Presently, we are entering the final stages of the domestic cattle eradication program. For FY 2000, APHIS expects the number of States in accredited-free status to increase by 4. At the end of FY 2001, APHIS expects to maintain the number of States in accredited-free status. Follow up surveillance

activities will be funded from the Animal Health Monitoring and Surveillance (AHM&S) program for 10 to 15 years, post eradication.

Means and Strategies: Funds for FY 2001 will be used to maintain area testing of domestic livestock in white-tailed deer tuberculosis endemic areas. External factors which may influence our results include the reinfestation of several large dairy herds in the El Paso area. APHIS would need an influx of over \$20 million to depopulate these herds. Depopulation is not a viable option for the owners and APHIS because of cost and limited funds. The herds get released from quarantine and historically have become reinfested months later. APHIS has had limited success with herd management plans for these large herds. An additional factor is the unrestricted importation of M. Bovis infected livestock from regions of the world with either a high prevalence of the disease (in non-livestock species) or an unknown prevalence of the disease. APHIS has no control over importing livestock from regions where there is an unknown prevalence of the disease. No one knows it exists yet. Trade discussions can occur with other countries with prevalence of disease in nonlivestock species. Discussions would involve bargaining. As a result, maybe trade reciprocations from other countries. Another factor is the risk of tuberculosis in non traditional livestock species.

Verification and Validation: The Agency will use workload activity reports, national slaughter data, and data from the Tuberculosis Management Information System to measure and verify performance goals.

<u>Objective 3.14</u>: Witchweed - To eradicate witchweed from the U.S. and to maintain survey activities to substantiate that eradication has been accomplished.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Reduce acres infested with witchweed				
Acres infested with witchweed at end of season	8,001	5,540	4,900	4,100

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1.2: Open, expand, and maintain global market opportunities for agricultural products. USDA Goal 3.1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base and USDA Goal 3.2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness and aquatic ecosystems are also supported.

The program conducts control activities to eliminate seed in the soil while preventing host development, and survey activities to measure and verify witchweed eradication. These activities assure that various agricultural commodities in North Carolina and South Carolina are not restricted in the global marketplace.

Control activities, which have historically been funded from contingency funds, are designed to eliminate identified isolated infestations not exceeding 640 acres that occur on State or private land. If witchweed is allowed to spread into the corn belt, it could cause an estimated 10-percent yield loss of the \$20 billion corn and sorghum crop in the United States. State/Federal cooperative efforts continued moving the program toward eradication. By the end of the 1998 season, the project reduced the original infestation by 98.5 percent from nearly 500,000 acres in 1958 to 8001 acres. With the elimination of witchweed from known infested sites in North Carolina and South Carolina, both States will continue participating in ongoing field surveys to monitor the effectiveness of eradication. Measures will demonstrate APHIS' progress toward eradicating witchweed from the United States. Acres are terminated from the project after ten years of survey to verify eradication.

Means and Strategies: The Witchweed Eradication Project involves APHIS, the North Carolina

Department of Agriculture and Consumer Services (NCDA), and the South Carolina Department of Plant Industry. It began in 1958 when approximately 500,000 acres were infested. APHIS has transferred the responsibility for eradication in North Carolina to the NCDA. In South Carolina, APHIS is responsible for eradicating infested acres. APHIS will continue to provide the financial and technological support to both States to allow them to complete the eradication of infested acres, conduct post-eradication surveys and treat new infestations when detected.

Verification and Validation: Program critiques and/or end-of-year reviews will be performed with direct input and participation from the scientific community and industry to evaluate these programs' effectiveness. In addition, regional and national program managers, officers and analysts will review, evaluate and verify data gathered to support performance measures. Recommendations based on verified data analysis will be provided to field operations for consideration and/or execution as appropriate.

For witchweed, APHIS will use the Witchweed Database to retrieve information on the number of acres of appraisal and post eradication surveys as well as the number of acres receiving eradication treatments. APHIS will also use NAPIS to retrieve information on infested acres by county. In addition, cooperative agreement accomplishment/expenditure reports and the information retrieved from the Witchweed Database will be used to obtain cost per acre. This information will form the basis for the measures identified.

<u>GOAL 4</u>: Ensure the humane care and treatment of animals covered under the Animal Welfare Act and the Horse Protection Act.

Program Activities: Animal Welfare, Horse Protection

(In thousands of dollars)	FY 1998 Actual	FY 1999 Actual	FY 2000 Estimated	FY 2001 Estimated
Funding	\$9,847	\$9,596	\$10,528	\$15,565
FTEs	132	131	131	161

<u>Objective 4.1</u>: Animal Welfare - To ensure high levels of compliance with the humane care and treatment standards for all warm-blooded animals covered by the Animal Welfare Act and used for research or exhibition purposes, sold as pets, or transported in commerce.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Increase the percentage of facilities in compliance				_
Percent of facilities in compliance	58%	59%	60%	61%

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 3: Promote sensible management of our natural resources.

Over the years, APHIS has determined that there is a direct relationship between the number of inspections performed at a facility and the level of compliance. Higher numbers of inspections result in a greater degree of compliance with the Animal Welfare Act. At this increased level of funding, the Agency will be able to increase the number of compliance inspections and if the number of facilities remains constant, compliance will improve. In order to maintain the levels of facility compliance and in order to achieve targeted improvement in those levels, more educational activities and compliance inspections must be performed.

Means and Strategies: The \$14 million of resources are needed to maintain the current level of funding and personnel for monitoring and inspections.

Since 1992, the appropriation for the AWA has remained constant and inspections to ensure minimal standards of care have declined from 17,764 in 1992 to 10,709 in 1998, without any reduction in the number of animals or number of animal sites (approximately 10,400) requiring inspection oversight. The increase would permit APHIS to enforce the Animal Welfare Act (AWA) and ensure the humane care and treatment of animals at facilities covered by AWA. It will allow for inspections of licensees and registrants with more reliable frequency and for enforcement of the timely correction of violations found during inspections.

Verification and Validation: Animal Welfare overall facility compliance data have been collected for four years (FY 96-99) and show a consistency from year to year that lends them credibility. Additional analysis and cross checks are performed by an independent analyst, working with Animal Care personnel, preserving on paper and in electronic form the details on which summary figures are built. The inspection report for this measure is created by Animal Care field employees at the conclusion of each inspection and periodically reviewed by supervisors in Regional Offices. In the past, inspection data has been entered into the automated Licensing and Registration Information System (LARIS) by support personnel in Regional Offices. LARIS has recently undergone a complete redesign and upgrade, and data for FY 00 will be entered by field employees directly into the electronic database via laptop and modem. Information Technology Systems personnel are writing automated reports to enable program managers to run summary reports quickly and easily.

The Animal Care compliance data come from Animal Care inspection reports completed at the conclusion of each inspection. With a copy of the inspector's report provided to the facility, there is ample time for inspectors and regulated entities to catch errors and correct them. The validity of Animal Care performance measures was ensured at the beginning of the development process using a team of front line inspectors and input from stakeholder organizations.

<u>Objective 4.2</u>: Horse Protection - To continue to strengthen association with the horse industry and Designated Qualified Person (DQP) programs through a cooperative working relationship and a comprehensive plan to achieve the elimination of the soring of horses.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Reduce the percentage of horses inspected that exhibit abnormalities of the front feet				
Percentage of horses inspected that exhibit abnormalities of the front feet	46%	44%	42%	40%

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 3: Promote sensible management of our natural resources.

In FY 1998, APHIS published and implemented the Horse Protection Strategic Plan. The Plan provides for better utilization of APHIS resources by allowing Horse Industry Organizations (HIO) with Designated Qualified Persons (DQP) programs to assume greater responsibility for the enforcement of the Horse Protection Act. It allows for regulatory oversight at far more horse shows. APHIS will be able to enhance the enforcement of the Horse Protection Act by increasing routine audits of horse industry records and attending additional horse shows. This funding increase will allow APHIS inspectors to attend 8 additional horse shows that utilize DQPs and 2 more show not affiliated with one of the certified HIOs. In addition,

more follow-up audits will be conducted on DQP programs not fulfilling their requirements under the HPA.

Means and Strategies: The \$14 million of resources are needed to maintain the current level of funding and personnel for monitoring and inspections.

Budget limitations restrict the Agency to sending inspectors to less than 10 percent of all horse shows held. APHIS is moving towards industry self regulation. Through a cooperative enforcement partnership with Horse Industry Organizations (HIOs) the Agency is placing primary enforcement responsibility upon the horse industry Designated Qualified Persons (DQP) inspection program. While APHIS will not relinquish its authority under the HPA or regulations, it is redefining its oversight of the horse industry through increased advisory, audit, and evaluation roles. APHIS will work cooperatively with the show horse industry to use DQP's to the fullest extent possible and relies on this cooperation to ensure goals are met. Through this action, APHIS inspectors would be more readily available to audit industry records and DQP results and move to monitoring shows and industry organizations.

Verification and Validation: At present, Horse Protection compliance data have been summarized for FY 98 and FY 99. They are created by USDA Veterinary Medical Officers at the conclusion of horse show inspections and sent to headquarters on paper forms where they are entered into Lotus spreadsheets and reviewed and summarized by program managers and independent analysts. These data are 99% complete and accurate.

<u>GOAL 5</u>: Facilitate the development of safe and effective veterinary biologics, biotechnology derived products, and other scientific methods for the benefit of agricultural producers and consumers and to protect the health of American agriculture and the environment.

Program Activities: Biotechnology, Integrated Systems Acquisition Project, Plant Methods Development Laboratories, Veterinary Biologics, Veterinary Diagnostics, Wildlife Services Methods Development

(In thousands of dollars)	FY 1998 Actual	FY 1999 Actual	FY 2000 Estimated	FY 2001 Estimated
Funding	\$55,100	\$54,455	\$53,011	\$54,043
FTEs	674	616	621	627

<u>Objective 5.1</u>: Wildlife Services Methods Development - To develop and transfer new, alternative methods and systems for wildlife damage management which are effective, biologically sound, and socially acceptable while improving current wildlife damage management methods and their availability.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Develop useful, appropriate methods				
Number of new and improved methods tested by the National Wildlife Research Center	17	18	18	18

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1:2: Open, expand, and maintain global market opportunities for agricultural products, USDA Goal 3:1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base, and USDA Goal 3:2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness, and aquatic ecosystems. Outcome data for many of the scientific and technology services indicators are dependent upon the implementation of or improvement in unified database systems and computer links within the Agency. These systems will allow

a better exchange of information on the detection, management, and exclusion of pests and diseases, and wildlife conflicts. APHIS will maintain data on technology development and research projects by laboratories and cooperating organizations.

The program goal is to develop and transfer increased effective methods for wildlife damage management through research and development. The National Wildlife Research Center (NWRC) identifies, develops, and evaluates new, alternative methods, equipment, systems, and integrated strategies for solving existing and emerging wildlife damage problems related to agriculture, other human endeavors, and wildlife hazards to human health and safety. It provides technical advice and training to wildlife specialists, agricultural producers, cooperators, and the public on applications of wildlife damage management methods and systems which are effective, safe, economical, and socially acceptable.

Means and Strategies: Although APHIS research and development projects are funded from annual appropriations, most projects require several years before results are conclusive or applicable, and periodic analysis of project progress provides the basis for estimating time and funding required to achieve desired results from these efforts.

The Agency will maintain FY 1999 activities. As new major wildlife damage problems arise, APHIS will initiate new research programs to develop alternative methods to resolve these issues.

Verification and Validation: The NWRC Project Management System provides annual reporting of achievement and outcomes for research projects. Performance data will continue to be compiled from the system. NWRC will complete final (project completion) reviews of 11 of its 16 projects by September 1999. These reviews are performed by panels comprised of APHIS research managers, outside scientists from other agencies and universities, agriculturists, and natural resource managers. Accomplishment of project objectives and interim outcomes are evaluated in regard to the overall project goals. The feedback provided by the Project Management System serves as the basis for performance monitoring and developing recommendations for future work.

<u>Objective 5.2</u>: Biotechnology/environmental protection - To facilitate the development of significant biotechnology-derived products that benefit agricultural producers and consumers. To achieve cost-effective compliance with environmental analysts and reporting requirements and to institutionalize a solid environmental ethic within agency programs.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Facilitate the development of non- threatening biotechnology derived products				
New crop varieties genetically engineered	48	50	56	60

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1:2: Open, expand, and maintain global market opportunities for agricultural products, USDA Goal 3:1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base, and USDA Goal 3:2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness, and aquatic ecosystems. Outcome data for many of the scientific and technology services indicators are dependent upon the implementation of or improvement in unified database systems and computer links within the Agency. These systems will allow a better exchange of information on the detection, management, and exclusion of pests and diseases, and wildlife conflicts. APHIS will maintain data on technology development and research projects by laboratories and cooperating organizations.

The Biotechnology program regulates the field release, interstate movement, and importation of genetically modified organisms. In addition, the program fosters technology transfer by allowing for the

safe field testing of potentially beneficial plants and micro-organisms and licensing of recombinant derived veterinary biologics for sale and distribution in the United States. The program also enhances technology transfer by reducing domestic and international barriers to biotechnology development and trade. Outcomes will measure the extent to which APHIS is able to certify and ensure that the introduction and field testing of new products do not threaten America's plant and animal resources and/or industries, the general public, or the environment. The Agency will maintain registrations/approvals of chemicals used in APHIS programs, while helping identify emerging, less environmentally intrusive alternatives to current practices and tracking pesticide usage where needed for registration reporting.

Means and Strategies: Although APHIS research and development projects are funded from annual appropriations, most projects require several years before results are conclusive or applicable, and periodic analysis of project progress provides the basis for estimating time and funding required to achieve desired results from these efforts.

APHIS has employed three performance indicator processes to make decisions on new program improvements: Direct input from applicants; monthly data base performance evaluations; and consultations with State regulatory officials through the national and regional plant boards. Input/output data is gathered and reported by the Veterinary Biologics Information System (database) and other tracking systems. Data is used for prioritization and improvements in performance evaluation discussions, management team meetings, and in section, unit, and Center wide meetings. The process of environmental stakeholder consultations may result in program improvements as might recommendations made in environmental monitoring reports. Environmental Protection - Field training in environmental compliance is an ongoing activity that ensures that all those preparing environmental documents know the basic requirements for compliance with regulations. The primary performance objective is more complete compliance of programs with environmental documentation and regulations. The proposed increase of \$1,760,000 for Biotechnology activities includes \$325,000 to meet increasing environmental review and compliance needs. These resources will enable APHIS to more effectively assess and address environmental impacts of trade and invasive species, cumulative environmental impacts, environmental impacts on minority and low income populations (Executive Order 12898), and environmental health and safety risks to children (Executive Order 13045); and to implement an ecosystem-approach to resource management, sustainability, and integrated management practices. The increase will also enable APHIS improve the gathering and management of scientific data necessary to ensure the availability and safe use of critical program pesticides and drugs and to comply with reporting and other requirements of the Food Quality Protection Act (FQPA) of 1996. Of the total increase, \$1,275,000 and 9 additional staff years will be used to meet the increasing demands for biotechnology permits/notifications, granting of petitions for deregulation (commercialization), licensing and international activities necessary to bring the Agency's biotechnology to optimum level. Current permitting and petition workload indicates that additional SYs are necessary to review applications for veterinary biologics, plant, microorganisms, and arthropod genetically modified organisms, as well as to address strategic and scientific issues and phytosanitary trade issues involving biotechnology products. Nearly twenty percent of all biotechnology authorizations for the movement, field testing, and deregulation of plants in the 1990s occurred in FY 1999. Additional staff years will: ensure mandatory review times for permits, notifications, and petitions are met and that our assessment process addresses all relevant scientific issues; assist with training and provide scientific expertise to governmental trade agencies; maintain and review the public database for field testing and commercialization of genetically modified organisms; identify and prepare for future risk issues associated with commercialization of new types of products, including plants producing pharmaceuticals or industrial products (e.g., plastics), transgenic forest trees, and herbicide-tolerant turf grasses; and, participate in international biotechnology harmonization of regulatory processes and standard setting through work with international organizations, bilateral discussions and capacity building. Performance standards expect to meet the needs to review these products in a time manner: within one to two years for domestic biotechnology products and within two to five years for international biotechnology products.

APHIS presently has one person involved in regulation of transgenic arthropods. We anticipate a need for at least two additional positions to conduct risk assessments and process permits for the movement and release of genetically engineered (transgenic) arthropods that have direct or indirect impact on plants or plant pests. In 1996, the Agency processed its first permit request of a transgenic arthropod for release

into the environment under the Federal Plant Pest Act. Increasing permit activity involving transgenic arthropods suggests that by the year 2000, APHIS will be unable to adequately respond to the anticipated volume of permit requests along with the associated liaison and policy activities with only one staff year. The pattern of increasing permit activity will most likely mirror those of genetically engineered plants experienced by APHIS in the early years of its permitting, wherein several hundred permits were issued in the fourth year after the initial permit.

The Agency's Center for Veterinary Biologics (CVB) receives applications for biologics produced in transgenic plants, and expects a large increase in applications for products based on production of immunogenic proteins in plants. These products do not require use of animal byproducts in production, thereby reducing risk of contamination of vaccines with adventitious agents capable of causing epizootics. In addition, transgenic plants reduce the cost of production and distribution because they often do not require a cold-chain. Production infrastructure exists, and the field will expand rapidly in the near future. Based on the current scientific literature and on interest expressed by biologic firms, we must prepare to respond to such applications with scientific-based licensing decisions in a timely manner. Performance standards expect to meet the needs to review these products within one to two years for biotechnology products.

Plant-based vaccines have the potential to alleviate many safety concerns of conventional vaccines which would enhance customer satisfaction and public confidence. CVB will hire scientists with the appropriate background to establish licensing considerations, determine appropriate decisions, review risk analyses at a level acceptable to the public and the scientific community, and provide leadership necessary to allow biologics firms to exploit the potential for improved and more cost-effective animal vaccination and diagnosis. CVB must train its current scientists to achieve an appropriate level of expertise to ensure public confidence that products based on transgenic plants will pose no risk to the environment during growth, production, and use.

This increase will also be used to replace or update scientific equipment and software and to provide necessary training on inspection procedures and animal welfare issues related to transgenic animals that may have special humane handling, veterinary care, and transportation needs.

Verification and Validation: Program critiques and/or end-of-year reviews will be performed with direct input and participation from the scientific community and industry to evaluate the program's effectiveness. The program maintains records of environmental stakeholder consultations, environmental monitoring reports, and program impacts based on environmental concerns. Electronic databases track application and response dates for registration activities; collect data to support emergency exemptions from registration; and categorize other program support activities. Monitoring and registration reports are submitted quarterly. Also, the program will prepare and distribute compliance monitoring reports containing recommendations for corrections and improvements in the compliance system.

APHIS has in place internal controls to ensure accurate, complete and consistent data and information for this measure. The data used is the permit/notification information that the individual/entity provides at the time they submit their request. The database is updated daily.

<u>Objective 5.3</u>: Integrated Systems Acquisition Project - To obtain, implement, and facilitate the use of the necessary information technology infrastructure that will advance the accomplishments of APHIS' goals (See Management Initiative 1).

<u>Objective 5.4</u>: Plant Methods Development Laboratories - To develop and transfer biologically sound plant pest exclusion, detection, suppression, and control technologies and systems for APHIS and its stockholders.

Performance Goals and Indicators Develop useful, appropriate methods	FY 1998	FY 1999	FY 2000	FY 2001
	Actual	Actual	Target	Target
Percentage of new technologies transferred that have reduced established populations of invasive pests, or have improved efficiencies or effectiveness in excluding pests, detrimental to agriculture or plant ecosystems	N/A	N/A	60%	70%

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1:2: Open, expand, and maintain global market opportunities for agricultural products, USDA Goal 3:1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base, and USDA Goal 3:2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness, and aquatic ecosystems. Outcome data for many of the scientific and technology services indicators are dependent upon the implementation of or improvement in unified database systems and computer links within the Agency. These systems will allow a better exchange of information on the detection, management, and exclusion of pests and diseases, and wildlife conflicts. APHIS will maintain data on technology development and research projects by laboratories and cooperating organizations.

This program adopts, develops, and/or evaluates techniques, methods, materials, equipment, and systems for exclusion, detection, and the management of pests that can potentially harm U.S. agriculture or natural systems or that affect international or interstate trade. It also provides technical advice, training to program personnel on how to use the methods and technologies it develops or adapts, and disseminates pertinent information to PPQ and its cooperators. This program acts as a bridge between the research community, private industry, and the operational programs to leverage resources and identify new technology which can be tailored to improve PPQ programs and help attain its goals.

Means and Strategies: Although APHIS research and development projects are funded from annual appropriations, most projects require several years before results are conclusive or applicable, and periodic analysis of project progress provides the basis for estimating time and funding required to achieve desired results from these efforts.

This program is devoting an increasing proportion of its resources to newly introduced exotic pests. The rate that these pests are being introduced into North America continues to increase dramatically. For example, the Asian Longhorned Beetle and other wood-inhabiting insects either already have been introduced and established (Pine Shoot Beetle), or are not yet known to have been introduced. This activity area will require increasing amounts of resources to support directed actions. Introductions of other exotic pests, such as the Asian Gypsy Moth, can be anticipated and will require timely pre-introduction resource commitments or demand emergency funding after establishment occurs. APHIS applies Agricultural Research Service (ARS) research on crop pests. The program maintains liaison with ARS; the Forest Services (FS); the Economic Research Service; the Cooperative State Research Service; Extension Service; industry; EPA; State agricultural experiment stations; and other international, Federal, or State agencies. For example, APHIS tests new chemicals for control, and field-tests attractants and the efficacy of implementing various survey and detection techniques for Asian Longhorned beetle. ARS conducts basic research that focuses on testing attractant activity, acoustical detection technology,

DNA characterization, and evaluation of control technologies and application methods.

Verification and Validation: Program critiques and/or end-of-year reviews will be performed with direct input and participation from the scientific community and industry to evaluate this program's effectiveness. APHIS' regional and national program managers, laboratory directors, and program analysts will review, evaluate, and verify indicator data. Their recommendations, based on verified data analysis, will be provided to laboratories and field operations for consideration and/or execution as appropriate.

<u>Objective 5.5</u>: **Veterinary Biologics -** To protect animal health by ensuring the purity, potency, safety, and efficacy of veterinary biological products.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Ensure that veterinary biologics are pure, safe, potent, and effective				
Licenses and permits issued annually after review, testing, and inspection	149	139	140	145

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1:2: Open, expand, and maintain global market opportunities for agricultural products, USDA Goal 3:1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base, and USDA Goal 3:2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness, and aquatic ecosystems. Outcome data for many of the scientific and technology services indicators are dependent upon the implementation of or improvement in unified database systems and computer links within the Agency. These systems will allow a better exchange of information on the detection, management, and exclusion of pests and diseases, and wildlife conflicts. APHIS will maintain data on technology development and research projects by laboratories and cooperating organizations.

Means and Strategies: Although APHIS research and development projects are funded from annual appropriations, most projects require several years before results are conclusive or applicable, and periodic analysis of project progress provides the basis for estimating time and funding required to achieve desired results from these efforts.

The Center for Veterinary Biologics would take the lead in international harmonization activities in FY 2001. APHIS would also use funds in FY 2001 to develop licensing requirements for naked DNA vaccines and guidelines for the use of in vitro assays for inactivated products to reduce animal testing. Funds would also be used for increased travel and training and quality assurance. External factors that might affect performance include the global trade situation in FY 2001 and supply and demand of U.S. Consumers. The Veterinary Biologics program has no control over the overall global trade market and has little impact over the spending trends of U.S. Consumers. Therefore, these external factors cannot be mitigated.

Verification and Validation: Input/output data will be gathered and reported by the Center for Veterinary Biologics' Information System (LIMS) and other tracking systems. The data is a true count of all licenses and permits issued for the 12 month period.

<u>Objective 5.6</u>: **Veterinary Diagnostics** - To provide laboratory diagnostic services, products, and training to support animal health and animal disease surveillance, prevention, control, and eradication programs.

Performance Goals and Indicators	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target	
Provide quality lab services					
NVSL's diagnostic response capabilities against international standards showing improvement over last review	N/A	N/A	0	1	

Discussion of Annual Performance Goals: These performance goals support USDA's Goal 1:2: Open, expand, and maintain global market opportunities for agricultural products, USDA Goal 3:1: Promote sustainable production of food and fiber products while maintaining a quality environment and strong natural resource base, and USDA Goal 3:2: Promote sustainable management of public lands; protect and restore critical forest land, range land, wilderness, and aquatic ecosystems. Outcome data for many of the scientific and technology services

indicators are dependent upon the implementation of or improvement in unified database systems and computer links

within the Agency. These systems will allow a better exchange of information on the detection, management, and exclusion of pests and diseases, and wildlife conflicts. APHIS will maintain data on technology development and research projects by laboratories and cooperating organizations.

Peer reviews are conducted by scientists representing private industry, academia, and government from the U.S. as well as foreign countries. Specific diseases are selected for review based on their animal health significance and economic impact on American agriculture. The accompanying peer reviews use baseline laboratory standards as set forth by the Office of International Epizootics (OIE). NVSL's new measurement will focus on the improvement of these reviews. Four reviews were conducted in FY 1998. In FY 1999, these reviews were analyzed and suggestions made for improvements. In FY 2000, NVSL will do one new review and will repeat one of the reviews done in FY 1998. In FY 2001, NVSL will repeat 2 of the reviews done in FY 1998 with at least one showing improvement. Beyond FY 2002, NVSL will conduct 5 reviews in 5 different areas every 3 years and will expect to show improvement in at least 3 of the 5 areas each year beyond FY 2002.

Means and Strategies: Although APHIS research and development projects are funded from annual appropriations, most projects require several years before results are conclusive or applicable, and periodic analysis of project progress provides the basis for estimating time and funding required to achieve desired results from these efforts.

Funds would be used for new test methods and development work and additional diagnostic work (as related to the anticipated increase in monitoring and surveillance activities for pseudorabies , classical swine fever, avian influenza, and chronic wasting disease). Funds would also be used to support aquaculture reagent production and the implementation of quality assurance measures. External factors that might affect performance include the global trade situation in FY 2001, animal health emergencies in FY 2001, and supply and demand of U.S. consumers. The Veterinary Diagnostics program has no direct impact on the trade situation in foreign countries or on the spending trends of U.S. consumers. Therefore, these external factors cannot be mitigated.

Verification and Validation: Internal audits and external reviews and corroboration by a recognized authority or peer review will be used. For each disease, validation against appropriate standards for all lab activities needs to be conducted using a mix of APHIS specialists, USAHA representatives, internal regulatory officials, quality assurance specialists, ARS scientists, industry, and customers.

Management Initiative #1: Improve results and service - APHIS will achieve results that our customers and stakeholders need while providing the service that they expect.

Program Activities: All

	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Funding (See "Summary of Resources Chart")				
FTE's (See "Summary of Resources Chart")				

Performance Goals and Indicators				
Percentage of APHIS employees operating from standard hardware/software platform	80%	90%	95%	95%
All APHIS programs and activities are delivered in a manner which is free from discrimination				
Level of outreach is increased **	N/A	50%	N/A	N/A
Reduction in percent of complaints or allegations of discrimination in program delivery by customers and service beneficiaries **	N/A	50%	N/A	N/A
	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
APHIS employees and applicants are valued for their diversity and afforded equal opportunity in all aspects of employment such as recruitment, hiring, promotion, career development and awards.				
Progress made towards decreasing under representation at all grade levels **	N/A	1%	N/A	N/A
Number of employment discrimination complaints by employees and applicants are reduced **	N/A	55%	N/A	N/A
Percentage of employees receiving mandatory civil rights training *	100%	100%	100%	100%
APHIS employees and managers are responsible for working together to resolve the problems at the lowest level of the organization which minimizes the need for formal resolution				
Number of employees using informal options prior to filing formal complaints	N/A	100%	N/A	N/A

- * The Department has mandated that each employee be trained in areas of Civil Rights policy through FY 2000. APHIS anticipates that the Department will continue this mandate for FY 2001.
- ** These measures are new, and APHIS is currently collecting data for them. We are working toward a consistent, qualitative method to represent progress in these areas.

Discussion of Annual Performance Goals: These selected performance goals are directly linked to the Agency strategic plan and the management initiatives set forth in that plan: *Science and Technology* - APHIS will acquire and apply the best scientific and technological expertise and appropriate technologies and information management systems to ensure timely and scientifically sound decision making. *Workforce Diversity* - APHIS will provide workforce diversity training to all employees, and develop a diverse, team based organization.

Means and Strategies: APHIS serves and regulates a wide range of the American public. The Agency is using its Change Agenda, a long term Agency reinvention initiative to focus employees on results and service. Included in this Change Agenda are a number of strategies, including global interests, environmental responsibility, innovative regulatory systems, customer service, science and information technology, continual learning, and workforce diversity. This initiative addresses APHIS and USDA civil rights policies. Resources necessary to accomplish this initiative will be accomplished through program funding. Our capability to acquire and apply the best technologies and information management systems to ensure timely and scientifically sound decision making will be affected by the overall supply of IT specialists and scientists in the workforce. The cost of attracting and retaining these workers or purchasing their services is also a factor.

Verification and Validation: Workforce diversity and civil rights training will be measured using existing unit tracking systems. The percentage of employees operating from standard hardware/software computing platforms will be measured through inventories and asset management tools.

Management Initiative #2: Improve program efficiency - APHIS will be an Agency that not only achieves results and improves service, but does so efficiently and equitably.

Program Activities: All

	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Funding (See "Summary of Resources Chart")				
FTE's (See "Summary of Resources Chart")				

Performance Goals and Indicators				
Increase the ratio of supervisors to employees to direct a higher percentage of Agency resources to service delivery	1:8	1:8	1:10	1:10
Reduce the number of APHIS regional locations to maximize efficiencies and crossutilization of resources	13	7	7	2

Discussion of Annual Performance goals: These selected performance goals are directly linked to the Agency strategic plan and the management initiatives set forth in that plan.

Means and Strategies: Resources necessary to accomplish this initiative will be accomplished through program funding.

Verification and Validation: The ratio of supervisors to employees is derived from data on the number of permanent employees. The National Finance Center database collects and reports this data.

Management Initiative #3: Encourage prudent financial stewardship, accountability, and improved business operations.

Program Activities: All

	FY 1998 Actual	FY 1999 Actual	FY 2000 Target	FY 2001 Target
Funding (See "Summary of Resources Chart")				
FTE's (See "Summary of Resources Chart")				

Percentage of eligible delinquent debt sent to Treasury for administrative offset and debt management cross servicing.	N/A	N/A	N/A	N/A
Convert APHIS accounting records to the new USDA Foundation Financial System (FFIS) by the end of FY 2001	N/A	N/A	N/A	N/A

Discussion of Annual Performance goals: Implement DCIA - Before APHIS can refer delinquent debts to Treasury, it is required to update its system of records to include referral to Treasury for cross-servicing and administrative off-set. This process involves publishing a notice in the Federal Register, and will require reviews by the Office of General Council and the Office of Management and Budget. APHIS has prepared a workplan and is in the process of drafting the notice for the Federal Register. Our success in achieving the goal is dependent upon how long that process will take. Implement integrated financial management system - In December, 1994, the Department contracted to install its federal accounting software at the National Finance Center (NFC). This new accounting system, named the Foundation Financial Information System (FFIS) is designed to replace the Central Accounting System (CAS). APHIS is scheduled to implement the FFIS on October 1, 2000. During FY 1999, APHIS initiated actions to prepare the Agency for migration to the FFIS. These actions included developing requirements for a new billing and collection system, reviewing the APHIS FFIS configuration and revising it to meet current needs, and defining the Agency's reporting needs under the FFIS. The Agency's ability to meet that target date is dependent upon OCFO's ability to develop enhancements to the FFIS accounts receivable module to meet APHIS billing and collection requirements and the development of a data warehouse to meet our financial reporting needs. Provide reliable cost accounting information - In FY 1999, APHIS continued to expand the use of Activity Based Costing (ABC) for its management support activities and conducted ABC studies for several programs, including animal welfare and agricultural quarantine inspection activities. APHIS is using ABC cost information to align performance measures with cost for its administrative support services. The Agency is examining ways to incorporate cost information with its budget requests for administrative services. APHIS has successfully implemented the FASAB cost accounting standards for financial statement reporting. The Agency continues to participate on the Department's Cost accounting Task Group, and has developed and is implementing a cost accounting action plan. APHIS will continue to promote activity based costing and plans to use this process to develop cost information for management information and resource allocation for their support units. Correct internal control deficiencies timely - APHIS currently uses the Central Accounting System and related feeder systems at NFC to record both administrative and program accounting transactions. Any corrections of internal control deficiencies in these systems must be addressed by OCFO/NFC. APHIS is, however, evaluating its compensating controls as recommended by NFC. The Agency has reviewed the security processes for Agency access to NFC systems and has developed several ad hoc reports to monitor obligations, expenditures, and disbursements. APHIS will implement the FFIS in FY 2001; the new system will correct several internal control weaknesses that currently exist in CAS. In addition, the FFIS is Standard General Ledger compliant which will enable the Agency to produce external reports in compliance with accounting standards and has a funds control process that will allow the Agency greater

control over its budget execution processes. *Clean and timely audit opinion* - APHIS financial statements are not independently audited, but the information contained on the financial statements is subject to audit as part of the audit of the Consolidated USDA Financial Statements. An adverse condition that occurs within any agency may prevent the Consolidated USDA Financial Statements from receiving a clean position. APHIS cannot control an adverse condition that may occur within a different agency. APHIS is also serviced by the National Finance Center, and APHIS financial information is subject to any internal control or processing weakness that may exist in the NFC systems. APHIS has made efforts to verify the accuracy of the data reported on its financial statements by developing a system of compensating controls that will promptly detect and correct any problems and issues that occur with its financial management information. APHIS is still in the process of developing these controls and will be able to report on them in future plans.

Means and Strategies: Resources necessary to accomplish this initiative will be accomplished through program funding.

Verification and Validation: APHIS is working with its Minneapolis Business Service and the USDA National Finance Center to develop procedures for measuring the percentage of eligible debt that is referred for offset. We expect to have procedures in place by January 1, 1999. APHIS debt management functions are split between our Minneapolis Business Site and the USDA National Finance Center. APHIS performs the debt collection function for debts up to 180 days delinquent. Debts over 180 days delinquent are managed by the Claims Section at the National Finance Center. Our Minneapolis Business Site cannot refer eligible debts to Treasury until APHIS has updated its system of records; APHIS is continuing to work with its Legislative and Public Affairs unit to update its system of records. Without this update, the Agency cannot refer debts to Treasury for offset. The National Finance Center, however, has the ability to refer eligible debts to Treasury for offset.

APHIS will confirm the conversion of its records to the FFIS through the certification process with the Office of Inspector General, which will confirm our account balances, and the project Management Office, which will confirm our configuration and conversion process. This certification will be used for audit purposes to verify conversion. APHIS will begin the conversion process in FY 2000, and anticipates that all APHIS records will be converted to their new FFIS accounting system by December 21, 2000. This conversion is contingent on the modification the USDA Project Management Office must make to the FFIS Accounts Receivable module to accommodate APHIS' billing and collection process, which currently accounts for nearly one-third of the Agency's funding.

SUMMARY OF RESOURCES FOR FY 2000

(Dollars in Thousands)

	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Total
AQI User Fees	\$187,777 2,308 FTEs					\$187,777 2,308 FTEs
AQI Appropriated	\$34,546 586 FTEs					\$34,546 586 FTEs
Cattle Ticks	\$4,996 105 FTEs					\$4,996 105 FTEs
Foot & Mouth Disease	\$3,803 10 FTEs					\$3,803 10 FTEs
Fruit Fly Exclusion & Det.	\$25,183 230 FTEs					\$25,183 230 FTEs

Import/Export Inspection	\$6,809 142 FTEs				\$6,089 142 FTEs
Sanitary/Phytosanitary Mgmt.	\$7,530 52 FTEs				\$7,530 52 FTEs
Screwworm	\$30,276 64 FTEs				\$30,276 64 FTEs
Tropical Bont Tick	\$407 2 FTEs				\$407 2 FTEs
Animal Health Monitoring & Surveillance		\$65,943 670 FTEs			\$65,943 670 FTEs
Animal and Plant Hlt. Reg. Enforcement		\$5,850 76 FTEs			\$5,850 76 FTEs
National Animal Health Emergency Monitoring System		\$627 5 FTEs			\$627 5 FTEs
Pest Surveillance & Det.		\$6,680 30 FTEs			\$6,680 30 FTEs
Aquaculture			\$766 7 FTEs		\$766 7 FTEs
Biological Control			\$8,153 105 FTEs		\$8,153 105 FTEs
Boll Weevil			\$15,094 20 FTEs		\$15,094 20 FTEs
Brucellosis			\$10,876 65 FTEs		\$10,876 65 FTEs
Emerging Plant Pests			\$3,507 21 FTEs		\$3,507 21 FTEs
Golden Nematode			\$580 7 FTEs		\$580 7 FTEs
Gypsy Moth			\$4,363 35 FTEs		\$4,363 35 FTEs
Imported Fire Ant			\$100 0 FTEs		\$100 0 FTEs
Noxious Weeds			\$424 1 FTEs		\$424 1 FTEs
Pink Bollworm			\$1,316 17 FTEs		\$1,316 17 FTEs

Pseudorabies			\$4,563			\$4,563
			31 FTEs			31 FTEs
Scrapie			\$2,989 23 FTEs			\$2,989 23 FTEs
Tuberculosis			\$4,916 37 FTEs			\$4,916 37 FTEs
Wildlife Services Operations			\$31,395 323 FTEs			\$31,395 323 FTEs
Witchweed			\$1,506 4 FTEs			\$1,506 4 FTEs
Animal Welfare				\$10,167 127 FTEs		\$10,167 127 FTEs
Horse Protection				\$361 4 FTEs		\$361 4 FTEs
Biotechnology/Environ. Protection					\$8,523 111 FTEs	\$8,523 111 FTEs
Integrated Systems and Acquisition Project					\$3,497 0 FTEs	\$3,497 0 FTEs
Plant Methods Development Labs					\$4,688 73 FTEs	\$4,688 73 FTEs
Veterinary Biologics					\$10,337 155 FTEs	\$10,337 155 FTEs
Veterinary Diagnostics					\$15,609 176 FTEs	\$15,609 176 FTEs
Wildlife Services Methods Development					\$10,357 106 FTEs	\$10,357 106 FTEs
TOTAL	\$301,327 3,499 FTEs	\$79,100 781 FTEs	\$90,548 696 FTEs	\$10,528 131 FTEs	\$53,011 621 FTEs	\$534,514 5,728 FTEs

SUMMARY OF RESOURCES FOR FY 2001

(Dollars in Thousands)

	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Total
AQI User Fees	\$214,823 2,569 FTEs					\$214,823 2,569 FTEs
AQI Appropriated	\$38,450 618 FTEs					\$38,450 618 FTEs
Cattle Ticks	\$5,276 106 FTEs					\$5,276 106 FTEs
Foot & Mouth Disease	\$3,803 10 FTEs					\$3,803 10 FTEs
Fruit Fly Exclusion & Det.	\$55,110 252 FTEs					\$55,110 252 FTEs
Import/Export Inspection	\$7,237 143 FTEs					\$7,237 143 FTEs
Sanitary/Phytosanitary Mgmt.	\$9,492 62 FTEs					\$9,492 62 FTEs
Screwworm	\$30,400 63 FTEs					\$30,400 63 FTEs
Tropical Bont Tick	\$407 2 FTE					\$407 2 FTE
Invasive Species *	\$4,455 10 FTEs					\$4,455 10 FTEs
Animal Health Monitoring & Surveillance		\$69,501 688 FTEs				\$69,501 688 FTEs
Animal and Plant Hlt. Reg. Enforcement		\$6,263 79 FTEs				\$6,263 79 FTEs
Emergency Management System		\$5,868 15 FTEs				\$5,868 15 FTEs
Pest Surveillance & Det.		\$6,729 29 FTEs				\$6,729 29 FTEs
Invasive Species *		\$4,350 2 FTEs				\$4,350 2 FTEs

Aquaculture		\$576 5 FTEs			\$576 5 FTEs
Biological Control		\$8,318 103 FTEs			\$8,318 103 FTEs
Boll Weevil		\$2,856 7 FTEs			\$2,856 7 FTEs
Brucellosis		\$8,227 55 FTEs			\$8,227 55 FTEs
Emerging Plant Pests		\$28,586 36 FTEs			\$28,586 36 FTEs
Golden Nematode		\$580 7 FTEs			\$580 7 FTEs
Gypsy Moth		\$4,420 34 FTEs			\$4,420 34 FTEs
Noxious Weeds		\$2,124 4 FTEs			\$2,124 4 FTEs
Pink Bollworm		\$1,074 16 FTEs			\$1,074 16 FTEs
Pseudorabies		\$4,039 27 FTEs			\$4,039 27 FTEs
Scrapie		\$8,026 33 FTEs			\$8,026 33 FTEs
Tuberculosis		\$4,974 37 FTEs			\$4,974 37 FTEs
Wildlife Services Operations		\$28,684 272 FTEs			\$28,684 272 FTEs
Witchweed		\$1,506 4 FTEs			\$1,506 4 FTEs
Animal Welfare			\$15,167 157 FTEs		\$15,167 157 FTEs
Horse Protection			\$398 4 FTEs		\$398 4 FTEs
Biotechnology/Environ. Protection				\$10,283 117 FTEs	\$10,283 117 FTEs
Integrated Systems and Acquisition Project				\$0 0 FTEs	\$0 0 FTEs

Plant Methods Development Labs					\$4,806 72 FTEs	\$4,806 72 FTEs
Veterinary Biologics					\$10,751 154 FTEs	\$10,751 154 FTEs
Veterinary Diagnostics					\$17,678 182 FTEs	\$17,678 182 FTEs
Wildlife Services Methods Development					\$10,525 102 FTEs	\$10,525 102 FTEs
TOTAL	\$369,453 3,835 FTEs	\$92,711 813 FTEs	\$103,990 640 FTEs	\$15,565 161 FTEs	\$54,043 627 FTEs	\$635,762 6,076 FTEs

(Note: Funding for management initiatives has been included under program goals, prorated on the basis of FTE's.)

^{*} Aspects of APHIS' Invasive Species efforts occur under several goals.